



ADD-ON

CERTIFICATE COURSE

IN

Environmental law and policy

(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** Environmental law and policy
- **Course Code:** 22UGMICR09
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:** 10
- **Aim and Objective:** Law and policy plays a major role in the conservation and management of natural resources as well as pollution control. This course intends to introduce the students to the vast field of Environmental Law and Policy. The course would be divided into three broad areas. The first part would cover the basic concepts and principles of Environmental Law. This would include judicial precedents which now forms an essential part of environmental jurisprudence. The second part would be divided into specific introductory modules on forests and wild life including biodiversity related laws, air and water related laws including mega projects and nuclear laws, and laws relating to hazardous substances. The third part would discuss the developments at the international level in the field of environmental law. At the end of the course it is expected that the students would be familiar with the overall Environmental Law and Policy regime of the country as well as its international obligations. It is expected that the case studies would equip them with basic knowledge and skills to understand environmental law issues.
- **Course Description:** To explain the role of law, policy and institutions in the conservation and management of natural resources as well as pollution control & To introduce the laws and policies both at the national and international level relating to environment & To equip the students with the skills needed for interpreting laws, policies and judicial decisions

- **Details of course:**

Paper	Total Marks	Passing Marks
Environmental law and policy	100 marks mcq based test	40 marks

Grade system:

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

Environmental law and policy

Prepared by

Department of Microbiology

St. P. T. Science College, Madasa

Course Co-Ordinator: PROF. N.D.CHAHAN

Year: 2022-23

DATE-12-03-23 to 11-04-23

(For the all U.G. students admitted from the academic year 2022/2023)

Course Code: 22UGMICR09

Course Duration: 30 Hours

Unit-1: Basic Concepts in Environmental Law

- An introduction to the legal systems: Constitution, Acts, Rules, Regulations, Indian Judiciary, Doctrine of precedents, judicial review, writs writs writs, PIL, liberalisation of the rule of law, STAND, judicial activism.
- Introduction to environmental laws in India: Constitutional provisions, Stockholm conference, Shomvi and Vagdevi, Rio conference.
- General principles in Environmental law: Precautionary principle, Polluter pays principle, Sustainable Development, Public Trust doctrine, Overview of legislation and basic concepts.

Unit-2: Forest, Wildlife and Biodiversity related laws

- Evolution and Jurisprudence of Forest and Wildlife laws: Colonial forest policies; forest policies after independence.
- Statutory framework on Forests, Wildlife and Biodiversity: F.A, 1977, W.A.P.A. 1972, P.A. 1980, Biological Diversity Act, 2002, Forest Rights Act, 2006, Strategies for conservation: Project Tiger, Elephant, Rhino, Maldivian leopard.

Unit-3: Air, Water and Marine Laws

- National Water Policy and some state policies: Laws relating to prevention of pollution, access and management of water and institutional mechanism: Water Act, 1974, Water Cess Act, 1977, EPA, 1986.
- Pollution Control Boards: Ground water and law: judicial remedies and procedure: Marine laws of India: Coastal zone regulations.
- Legal framework on Air pollution: Air Act (1981); EPA, 1986.

Unit-4: Environment protection laws and large Projects

- Legal framework of environment protection—Environment Protection Act as the framework legislation—strength and weaknesses. I.A. National Green Tribunal The courts’ differentiable powers.

Unit-5: International Environmental law

- An Introduction to international law; Sources of international law; Law of treaties; Custom; ratification Evolution of international environmental law; Customary principles; Common but differentiated responsibility; Polluter pays.

References

1. Binny F. (2009) et al., International Law and the Environment, 1st ed., Oxford.
2. Das A. (2002) Environmental Jurisprudence, 2nd ed., Modern Law House, Allahabad.
3. Gopal M. and Gupta R. (1995) Ecology and Equity, Oxford, New Delhi.
4. Gopal M. and Gupta R. (1992) The Polluted Land, Oxford, New Delhi.
5. Gupta R. (2000) Environmentalism: A Global History, Oxford, New Delhi.
6. Kaushal S. and Singh G.K. (eds.) (2010) Towards Legal Literacy: An Introduction to Law in India, Oxford, New Delhi.
7. Leelavishwan R. (2000) Environmental Law Case Book, 2nd ed., Lexis Nexis, India.
8. Sands R. (2002) Principles of International Environmental Law, 2nd ed., Cambridge.
9. Singh C. (1986) Common Property and Common Poverty, Oxford, New Delhi.
10. Upadhyay S. and Upadhyay V. (2002) Hand Book on Environmental Law—Forest Law, Wildlife Law, and the Environment: Vols. I, II and III, Lexis Nexis, Butterworths India, New Delhi.

Journals

1. Economic and Political Weekly
2. Journal of Indian Law, Institute

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by:

THE ML GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan

Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle

Status awarded by UGC AND

'A' Grade (CGPA 3.04) to AAs by IEG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

**"ENVIRONMENTAL LAW AND
POLICY"-2023**

Certificate

This is to certify that _____ Class
B.Sc., Semester-__, Roll No. _____ has successfully
completed 30 Hours Add on Course
"ENVIRONMENTAL LAW AND POLICY"-2023
which was organized by Department of Microbiology
from 12/03/23 TO 11/04/23 at college campus.

Course Co-ordinator

Dr. K. M. Patel

HOD, Dept. of Microbiology

Dr. K.P. PATEL

Principal

Date:

Place: MODASA

"ADD ON COURSE ON ENVIRONMENTAL LAW AND POLICY" - 2023

Organized by Department of Microbiology

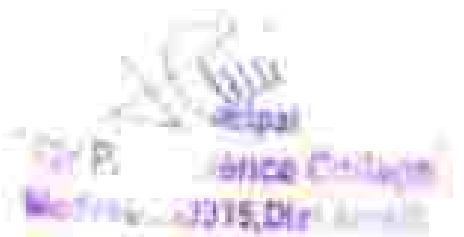
SIR P.T. SCIENCE COLLEGE, MODASA

DATE: 12-03-23 to 11-04-23

Batch - (2022-23)

Registration Details

No.	Roll No.	Student Name	GENDER	Signature
1	5530	KRISHALBEN AMRUTISHAI KATARA	F	K. Katara
2	5531	KISHANKUMAR MOTILAL MALVAD	M	K. M. Malvad
3	5532	MADHVA SHAHANIYARD/AINI MEGHREJI	F	M. Meghrej
4	5562	URVASHIKUMARI KHATUSINH DRAVID	F	U. K. D.
5	5563	VISHVABAHEN CHIRAGSHAI RAYAL	F	V. Rayal
6	3501	AarzuBen Dilipvarbhai Mansuri	F	A. Mansuri
7	3502	Aimes Mohd Zakariya Khan	M	A. Khan
8	3503	Anjaliben Gopalbhai Valand	F	A. Valand
9	3507	Harvi Nitishkumar Patel	F	H. Patel
10	3508	Jinkalben Vichrutbhai Patel	F	J. Patel



UNIT 1: Introduction to the Unit

Week 1: Introduction to the Unit

Day	Topic	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	Introduction to the Unit																														
2	Introduction to the Unit																														
3	Introduction to the Unit																														
4	Introduction to the Unit																														
5	Introduction to the Unit																														
6	Introduction to the Unit																														
7	Introduction to the Unit																														
8	Introduction to the Unit																														
9	Introduction to the Unit																														
10	Introduction to the Unit																														



ADD-ON

CERTIFICATE COURSE

IN

MUSHROOM CULTIVATION

(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

(MANAGED BY)

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE CAMPUS,
DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** MUSHROOM CULTIVATION
- **Course Code:** 22UGMICR06
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:** 10
- **Aim and Objective:** Enable the students to identify edible and poisonous mushrooms

Provide hands on training for the preparation of bed for mushroom cultivation and spawn production

Give the students exposure to the experiences of experts and functioning mushroom farms

Help the students to learn a means of self employment and income generation

- **Course Description:** By successfully completing the course, students will be able to:
 - Identify edible types of mushroom
 - Gain the knowledge of cultivation of different types of edible mushrooms and spawn production
 - Manage the diseases and pests of mushrooms
 - Learn a means of self-employment and income generation

- **Details of course:**

Paper	Total Marks	Passing Marks
MUSHROOM CULTIVATION	100 marks mcq based test	40 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

MUSHROOM CULTIVATION

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PROF. H.M.PATEL

Year: 2022-23

DATE: 27-02-22 to 25-03-23

(For the all UG students admitted from the academic year 2022-2023)

Course Code: 22UGMICRO6

Course Duration: 30 Hours

UNIT 1: Introduction to mushrooms (2 hours)

Mushrooms - Taxonomical rank - History and Scope of mushroom cultivation - Edible and Poisonous Mushrooms - Vegetative characters

UNIT 2: Common edible mushrooms (2 Hours)

Button mushroom (*Agaricus bisporus*), Milky mushroom (*Calocybe indica*), Oyster mushroom (*Pleurotus sajorçju*) and paddy straw mushroom (*Vegetaria volvariella*).

UNIT 3: Principles of mushroom cultivation (8 Hours)

Structure and construction of mushroom house. Sterilization of substrates, Spore production - culture media preparation- production of pure culture, mother spores, and multiplication of spores. Composting technology, mushroom bed preparation. Spawning, spawn curing, harvesting. Cultivation of oyster and paddy straw mushroom. Problems in cultivation - diseases, pests and nematodes, weed moulds and their management strategies.

UNIT 4: Health benefits of mushrooms (2 Hours)

Chemical and medicinal values of mushrooms. Therapeutic aspects and medicinal effect.

UNIT 5: Post harvest technology: (4 Hours)

Preservation of mushrooms – freezing, dry freezing, drying, canning, quality assurance and entrepreneurship. Value added products of mushrooms.

References

1. Marimuthu, T. et al. (1991). Oyster Mushroom. Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
2. Nile Bhat. (2000). Handbook on Mushrooms, 2nd ed. Vol. I and II. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
3. Fancey R.K, S. K Ghosh, 1996. A Hand Book on Mushroom Cultivation. Emkey Publications.
4. Pathak, V. N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrabios, Jaipur.
5. Tewari Pankaj Kapoor, S. C. (1998). Mushroom Cultivation. Mittal Publication, New Delhi.
6. Tripathi, D.P. (2005) Mushroom Cultivation, Oxford & IBH Publishing Co. PVT.LTD, New Delhi.
7. V.N. Pathak, Nagarindra Yadav and Maneesha Gaur. Mushroom Production and Processing technology/ Vedams Ebooks Pvt.Ltd., New Delhi (2000).

UNIT 4: Health benefits of mushrooms (2 Hours)

Nutritional and medicinal values of mushrooms. Therapeutic aspects and medicinal uses.

UNIT 5: Post harvest technology- (4 Hours)

Preservation of mushrooms - (boiling, dry heating, drying, canning, quality assurance, microprocessing). Value added products of mushrooms.

References

1. Marimuthu, T. et al. (1991). Oyster Mushroom. Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
2. Nita (Inal) (2000). Handbook on Mushrooms, 2nd ed, Vol. I and II, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
3. Pandey R.K, S. K GHOSH, 1996. A Hand Book on Mushroom Cultivation; Embley Publications.
4. Pathak, V. N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.
5. Tewari Pankaj Kapoor, S. C. (1988). Mushroom Cultivation, Mittal Publication, New Delhi.
6. Tripathi, D.P. (2005) Mushroom Cultivation, Oxford & IBH Publishing Co. PVT.LTD, New Delhi.
7. V.N. Pathak, Nagesh Yadav, and Maneesha Gaur, Mushroom Production and Processing Technology/ Vedams Ebooks Pvt Ltd., New Delhi (2000).

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Accredited with 'B++' Grade (Z.B3 CGPA) by NAAC in the 2nd Cycle

status awarded by UGC AND

'A' Grade (CGPA 3.04) to AAI by BCC (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"MUSHROOM CULTIVATION"-2023

Certificate

This is to certify that _____ Class
B.Sc., Semester-__, Roll No. _____ has successfully
completed 30 Hours Add on Course "**MUSHROOM
CULTIVATIONN**"-2023 which was organized by
Department of Microbiology from 27/02/22 TO
25/03/23 at college campus.

Course Coordinator

Dr. K.M. Patel
HOD, Dept. of Microbiology

Dr. K.P. PATEL
Principal

Date:

Place: MODASA

"ADD ON COURSE ON MUSHROOM CULTIVATION" - 2023

Organized by Department of Microbiology

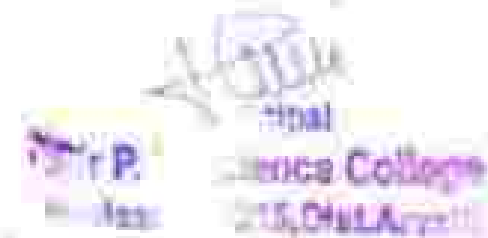
SIR P.T.SCIENCE COLLEGE, MODASA

DATE-27-02-22 to 25-03-23

Batch - (2022-23)

Registration Details

No.	Roll No.	Student Name	GENDER	Signature
1.	3509	Jyotiben Bhupendrabhai Vaojara	F	Jyotiben
2.	3510	M. Faqai Inaahusen Pakhandi	M	Faqai
3.	3511	MAITRI ASHOKBHAI PATEL	F	Maitri Patel
4.	3512	MOHAMMADKASUNAIN PIPSADNIYA SAYED	M	Mohammad Kasunain Sayed
5.	5547	RIYABEN DILIPKUMAR PATEL	F	Riya Patel
6.	5548	SANJANAKUMARI BALVIRSINH RAJPUT	M	Sanjana Rajput
7.	5549	SANJAYKUMAR MOHANSHAI PARMAR	M	Sanjay Parmar
8.	5550	SHEKHAR PAPPUSINH RAJPUT	M	Shekhar Rajput
9.	5551	SHIVAMKUMAR HIRABHAI PATEL	M	Shivam Patel
10.	5554	SHOBHITSINGH ARVINDKUMAR RAJPUT	M	Shobhit Rajput



Sir P.T. Science College, Modasa

Add on course:- MUSHROOM CULTIVATION

Sl. No.	Roll No.	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	1001	Pratik Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	1002	Adarsh Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	1003	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	1004	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	1005	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	1006	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	1007	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	1008	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	1009	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	1010	Pranav Patel	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



ADD-ON

CERTIFICATE COURSE

IN

Modern Biotechnologies for Wastewater Treatment
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANLURA ROAD, MODASA, ARVALLI-383315

- **Course Type:** Add-On Certificate Course
- **Course Name:** Modern Biotechnologies for Wastewater Treatment
- **Course Code:** 22UGMICROS
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:** 15
- **Aim and Objective:** Modern biotechnologies have been widely used in clinical diagnosis, food production, and the pharmaceutical industry. Their applications in wastewater treatment have greatly improved the accuracy and efficiency of characterizing biological systems in biological wastewater treatment plants and the natural environment.
- **Course Description:** This course is designed for graduate students and working professionals who would like to learn modern biotechnologies in wastewater treatment and how to apply these biotechnologies to understand, characterize, and optimize wastewater treatment systems and plants. At the end of the course, students are expected to understand modern biotechnologies and their applications in wastewater treatment, select appropriate biotechniques to understand, characterize, and optimize wastewater treatment systems, and assess public health risks associated with antibiotic resistant bacteria and viruses in wastewater.
- **Details of course:**

Paper	Total Marks	Passing Marks
Modern Biotechnologies for Wastewater Treatment	100 marks mcq based test	40 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent A+
70-89	Very Good A
50-69	Good B
40-49	Fair C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

* Modern Biotechnologies for Wastewater Treatment*

Prepared by

Department of Microbiology

Sr P. T. Science College, Modasa

Course Co-Ordinator: DR. K. S. PATEL

Year: 2022-23

DATE: 30-12-22 to 27-03-23

(For the all UG Students admitted from the academic year 2022-2023)

Course Code: 22UGMICROS

Course Duration: 30 Hours

Unit 1:

- Introduction of Microbiology
- Fields of Microbiology
- Microbe Types and Metabolic Lifestyles

Unit 2:

- Electron Donor and Acceptor
- Stoichiometry and Half-reactions
- Free Energy
- Cell Synthesis
- Developing Overall Stoichiometric Equations

Unit 3:

- Membrane Filtration
- Membrane Filtration Challenges
- Microbial Aggregation and Biofilm
- Biofouling and Control

Unit 4:

- Molecular Ecology Study
- Microbial Community Analysis
- Activity Assays and FAME
- Fluorescence in situ Hybridization
- Molecular Microbiology Tools

Unit 5:

- Antibiotics
- Antibiotic Resistance
- Horizontal Gene Transfer
- Evolution and Selfish Gene
- Viruses


Principal

Sr P. T. Science College
Modasa - 383115, Dist. Arvad

REFERENCE BOOKS

- "Environmental Biotechnology: Principles and Applications" by Bruce Rittmann and Perry McCarty.
- "Wastewater Microbiology" by Gabriel Bitton.
- "Microbiology: Principles and Explorations" by Jacquelyn G. Black.

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE MULLGANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Panchajanya, South Gujarat University, Rajkot
Accredited with 'B' Grade (2003 OBEA) by UMAC in the 2nd Cycle
(later awarded by UGC, OBE
'B' Grade (OBEA 3.04) in AICTE- RIG course at Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

**"MODERN BIOTECHNOLOGIES FOR
WASTE WATER TREATMENT"-2023**

Certificate

This is to certify that _____ Class
B.Sc., Semester-__, Roll No. _____ has successfully
completed 30 Hours Add on Course **"MODERN
BIOTECHNOLOGIES FOR WASTE WATER
TREATMENT"-2023** which was organized by
Department of Microbiology from **31/12/2022 TO
27/01/23** at college campus.

Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr. KP. PATEL
Principal

Date:

Place: MODASA

"ADD ON COURSE ON MODERN BIOTECHNOLOGIES FOR WASTE WATER TREATMENT" - 2023

Organized by Department of Microbiology

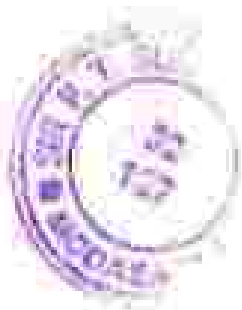
SIR P.T.SCIENCE COLLEGE, MODASA

DATE:30-12-22 to 27-01-23

Batch - (2022-23)

Registration Details

No.	Roll No.	Student Name	GENDER	Signature
1	3501	Aarzuben Dilaverbhai Mamani	F	
2	3502	Almas Mohd Zakariya Khan	M	
3	3503	Anjaliben Gopabhai Valand	F	
4	3507	Narvi Miteshkumar Patel	F	
5	3508	Jinkalben Vishrubhai Patel	F	
6	5502	AAYUSHI NILESHKUMAR PURCHIT	F	
7	5503	AMAN ASHOKHAJ PATEL	M	
8	5504	AMANSINH BALDEVYSINH RAJPUT	M	
9	5505	ANITA DUKGSINH RAJPUXCHIT	F	
10	5506	AVATEKUMAR DINESHSHAI CHAUDHARI	M	



Principal
Sir P.T. Science College
Modasa-383315, Dist. Arvali.

Sir P.T. Science College, Modasa

Add on course: Modern Biotechnologies for Wastewater Treatment

Sl. No.	Roll No.	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	1001	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	1002	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	1003	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	1004	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	1005	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	1006	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	1007	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	1008	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	1009	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	1010	Arunima Choudhary	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

ADD ON COURSE

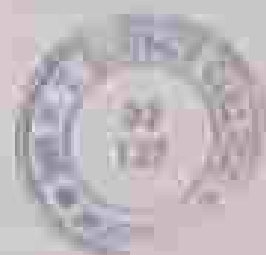
ON

"MANUFACTURING OF SOAP & DETERGENT"

DATE: 15-12-2023 to 03-01-2024

Duration: 30 Hours

Number of Total Students: 30

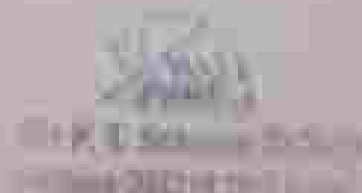


Handmade
SOAP MAKING



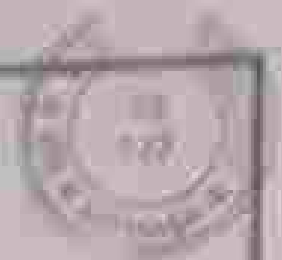
How to Make Handmade Soap by Hand and Spoon by

Organized By:



DEPARTMENT OF CHEMISTRY

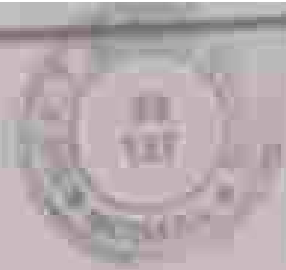
SIR P.T.SCIENCE COLLEGE, MODASA



Course Objectives:

- Discover the start-to-finish process of soap and detergent manufacturing with explanations of and machinery needed for metering, saponification, cooling, washing, neutralizing, drying, and finishing.
- Understand soap products' applications in the personal, fabric, and home care industries. And also understanding of oil, fat, and their sources in India.
- It will be more useful for students who are going to earn money by small business at home.

SRM P.T. SCIENCE COLLEGE, AVDASAR



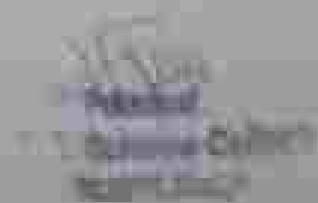
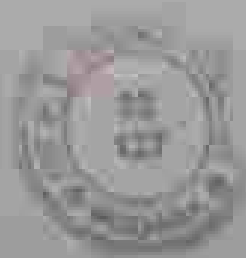
Minutes

A meeting of the committee consisting of the following members was held on 15-11-2022
 Monday at 02:00 pm to discuss the status of add on course by Chemistry Department to
 be started in the college. The following members were present in the meeting:

The attached status of 30 hours "ADD ON COURSE ON 'Manufacturing of Low S
 Delugeant" -2022 is approved by the committee after receiving discussion

S. No.	Name of Members	Designation	Signature
1	Dr. C.P. PATIL	Principal	
2	Dr. S.D. USHA	Head of the Biology Department	
3	Dr. G.L. VIKRAM	QA/QC Controller	
4	Dr. D.R. FUDANI	Head of the Chemistry Department	
5	Dr. S.H. PARHAR	Head of the Physics Department	
6	Dr. S.Y. PATIL	Associate Professor	
7	Dr. M.Y. CHANDOLA	PG in Charge, Chemistry Department	
8	Dr. S.M. DAVE	Assistant Professor	
9	Dr. J. H. PATIL	Assistant Professor	

Course Co-ordinator: Dr. D. R. Fudani



ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MOOASA



Date: 15-12-2022 to 02-01-2023

Course Duration: 30 hours

Course Syllabus

Unit: 1 Introduction to oil and fats:

04 hours

- 1.1 Classification, structure and sources of oil and fats
- 1.2 Natural sources of oils and fats in India

Unit: 2 Soaps:

5 hours

- 2.1 Introduction to soap, synthetic detergents, raw materials and its selection
- 2.2 Principles of soap making and chemistry of soap
- 2.3 Saponification process

Unit: 3 Detergents:

4 hours

- 3.1 Types of detergents, classification of detergents (anionic, non-ionic, Amphoteric, biodegradable)
- 3.2 inorganic compounds of detergents (borates & other additives, phosphates, silicates, zeolites etc)

Unit: 4 Practical

24 hours

4.1 Determination of physico-chemical characteristics of oil and fats

- I. Moisture content
- II. Acid value
- III. Iodine value
- IV. Saponification reaction and Saponification value

4.2 Manufacture of liquid soap and laundry soap (detergent)



APPROVED SYLLABUS FOR ADD ON COURSE ON
"Manufacturing of Soap & Detergent" -2023

Prepared by

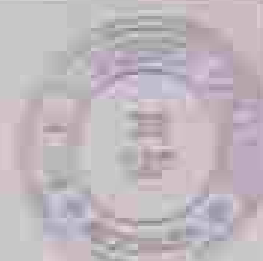
Department of Chemistry

Course Co-Ordination: Dr. D. B. Fudani

Year: 2022-23

Sir P. T. Science College, Modasa

Date: 15-12-2022 to 02-01-2023



Course Syllabus: (36 Hours)

Unit: 1 Introduction to oil and fats: 4 Hours

1.1 Classification, structure and sources of oil and fats

1.2 Natural sources of oils and fats in India

Unit: 2 Soaps: 6 Hours

2.1 Introduction to soaps, synthetic detergents, raw materials and its selection

2.2 Principles of soap making and chemistry of soap

2.3 Soiling, saponification process

Unit: 3 Detergents: 6 Hours

3.1 Types of detergents, classification of detergents (anionic, non-ionic, amphoteric), biodegradability

3.2 Inorganic compounds of Detergents (builders & other additives, phosphates, silicates, zeolites etc.

Unit: 4 Practical: 12 Hours

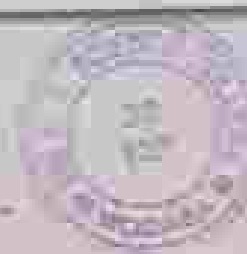
4.1 Determination of physico-chemical characteristics of oil and fats

- I. Moisture content
- II. Acid value
- III. Saponification value
- IV. Saponification reaction and Saponification value

4.2 Manufacture of liquid soap and laundry soap (detergent)

SIR P. T. SCIENCE COLLEGE, MODASA

ADD ON COURSE ON "Manufacturing of Soap & Detergent"



Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit 1	1.1 Classification, structure and sources of oil and fats 1.2 Natural sources of oil and fats in India	4 Hours
Unit 2	2.1 Introduction to soaps, synthetic detergents, raw materials, and its selection 2.2 Principles of soap making and chemistry of soap 2.3 Soiling, saponification process	5 Hours
Unit 3	3.1 Types of detergents, classification of detergents (anionic, non-ionic, Amphiberic), biodegradability 3.2 Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites etc.	5 Hours
Unit 4	4.1 Determination of physico-chemical characteristics of oil and fats I. Find out the moisture value in different oil II. To determine acid value of given oil sample III. To determine sapon value in oils and fats IV. To determine saponification value in given oil	5 Hours
	4.2 Manufacture of liquid soap and laundry soap (detergent) a. Preparation of soap base b. Preparation of different type of soap from soap base c. Preparation of liquid detergent	5 Hours

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

(Organized by Department of Chemistry)

SRI P.T. SCIENCE COLLEGE, MODASA

Date: 15-12-2022 till 05-05-2023

Registration Form

1. Name of student: Nishita Bhargava Patel
2. Address: Plot No. 10, Khandi, Ind. Highway, Modasa
3. Email ID:
4. Mobile number: 982084733
5. Semester of Study: B.Sc. - II
6. Subject: Chemistry
7. Roll No: 334
8. Academic Year: 2022/23
9. Enrollment No: BIC-0002102633
10. Average of marks of all previous semesters: 72

Date: 12/12/2022
Place: Modasa

Nishita
Signature of Student

"ADD ON COURSE ON: Manufacturing of Soap & Detergent"

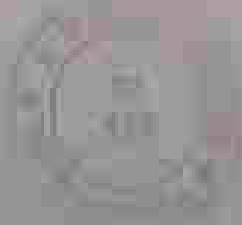
Organized by Department of Chemistry

SRI P. T. SCIENCE COLLEGE, MODASA

Date: 15-12-2022 to 02-01-2023

Programme (Time-Table)

Date	Time	Activity	Name of Expert
15/12/2022	8.0 am to 10.0 am	Introduction of course with I	Principal & Chemistry Staff
16/12/2022	8.0 am to 10.0 am	Theory Unit I	Dr. J. K. Patel
17/12/2022	8.0 am to 10.0 am	Practical Unit II	Dr. S. V. Patel
18/12/2022	8.0 am to 10.0 am	Practical Unit III	Dr. D. R. Fudani
20/12/2022	8.0 am to 10.0 am	Theory Unit II	Dr. D. R. Fudani
21/12/2022	8.0 am to 10.0 am	Theory Unit III	Dr. J. K. Patel
22/12/2022	8.0 am to 10.0 am	Theory Unit IV	Dr. S. M. Dave
23/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. D. R. Fudani
24/12/2022	8.0 am to 10.0 am	Theory Unit V	Dr. S. V. Patel
26/12/2022	8.0 am to 10.0 am	Theory Unit VI	Dr. M. P. Gangwani
27/12/2022	8.0 am to 10.0 am	Theory Unit VII	Dr. D. R. Fudani
28/12/2022	8.0 am to 10.0 am	Practical Unit V	Dr. D. R. Fudani
29/12/2022	8.0 am to 10.0 am	Practical Unit VI	Dr. S. M. Dave
30/12/2022	8.0 am to 10.0 am	Practical Unit VII	Dr. S. V. Patel
31/12/2022	8.0 am to 10.0 am	Practical Unit VIII	Dr. M. P. Gangwani
7/1/2023	8.0 am to 10.0 am	VIII & End	_____



Sl. No.	Name of the Candidate	Roll No.	Grade	Percentage	Remarks
1	A	1001	A	90	
2	B	1002	B	80	
3	C	1003	C	70	
4	D	1004	D	60	
5	E	1005	E	50	
6	F	1006	F	40	
7	G	1007	G	30	
8	H	1008	H	20	
9	I	1009	I	10	
10	J	1010	J	0	
11	K	1011	K	95	
12	L	1012	L	85	
13	M	1013	M	75	
14	N	1014	N	65	
15	O	1015	O	55	
16	P	1016	P	45	
17	Q	1017	Q	35	
18	R	1018	R	25	
19	S	1019	S	15	
20	T	1020	T	5	
21	U	1021	U	92	
22	V	1022	V	82	
23	W	1023	W	72	
24	X	1024	X	62	
25	Y	1025	Y	52	
26	Z	1026	Z	42	
27	AA	1027	AA	32	
28	AB	1028	AB	22	
29	AC	1029	AC	12	
30	AD	1030	AD	2	
31	AE	1031	AE	98	
32	AF	1032	AF	88	
33	AG	1033	AG	78	
34	AH	1034	AH	68	
35	AI	1035	AI	58	
36	AJ	1036	AJ	48	
37	AK	1037	AK	38	
38	AL	1038	AL	28	
39	AM	1039	AM	18	
40	AN	1040	AN	8	
41	AO	1041	AO	94	
42	AP	1042	AP	84	
43	AQ	1043	AQ	74	
44	AR	1044	AR	64	
45	AS	1045	AS	54	
46	AT	1046	AT	44	
47	AU	1047	AU	34	
48	AV	1048	AV	24	
49	AW	1049	AW	14	
50	AX	1050	AX	4	
51	AY	1051	AY	96	
52	AZ	1052	AZ	86	
53	BA	1053	BA	76	
54	BB	1054	BB	66	
55	BC	1055	BC	56	
56	BD	1056	BD	46	
57	BE	1057	BE	36	
58	BF	1058	BF	26	
59	BG	1059	BG	16	
60	BH	1060	BH	6	
61	BI	1061	BI	97	
62	BJ	1062	BJ	87	
63	BK	1063	BK	77	
64	BL	1064	BL	67	
65	BM	1065	BM	57	
66	BN	1066	BN	47	
67	BO	1067	BO	37	
68	BP	1068	BP	27	
69	BQ	1069	BQ	17	
70	BR	1070	BR	7	
71	BS	1071	BS	99	
72	BT	1072	BT	89	
73	BU	1073	BU	79	
74	BV	1074	BV	69	
75	BW	1075	BW	59	
76	BX	1076	BX	49	
77	BY	1077	BY	39	
78	BZ	1078	BZ	29	
79	CA	1079	CA	19	
80	CB	1080	CB	9	
81	CC	1081	CC	91	
82	CD	1082	CD	81	
83	CE	1083	CE	71	
84	CF	1084	CF	61	
85	CG	1085	CG	51	
86	CH	1086	CH	41	
87	CI	1087	CI	31	
88	CJ	1088	CJ	21	
89	CK	1089	CK	11	
90	CL	1090	CL	1	
91	CM	1091	CM	93	
92	CN	1092	CN	83	
93	CO	1093	CO	73	
94	CP	1094	CP	63	
95	CQ	1095	CQ	53	
96	CR	1096	CR	43	
97	CS	1097	CS	33	
98	CT	1098	CT	23	
99	CU	1099	CU	13	
100	CV	1100	CV	3	
101	CW	1101	CW	95	
102	CX	1102	CX	85	
103	CY	1103	CY	75	
104	CZ	1104	CZ	65	
105	DA	1105	DA	55	
106	DB	1106	DB	45	
107	DC	1107	DC	35	
108	DD	1108	DD	25	
109	DE	1109	DE	15	
110	DF	1110	DF	5	
111	DG	1111	DG	97	
112	DH	1112	DH	87	
113	DI	1113	DI	77	
114	DJ	1114	DJ	67	
115	DK	1115	DK	57	
116	DL	1116	DL	47	
117	DM	1117	DM	37	
118	DN	1118	DN	27	
119	DO	1119	DO	17	
120	DP	1120	DP	7	
121	DQ	1121	DQ	99	
122	DR	1122	DR	89	
123	DS	1123	DS	79	
124	DT	1124	DT	69	
125	DU	1125	DU	59	
126	DV	1126	DV	49	
127	DW	1127	DW	39	
128	DX	1128	DX	29	
129	DY	1129	DY	19	
130	DZ	1130	DZ	9	
131	EA	1131	EA	91	
132	EB	1132	EB	81	
133	EC	1133	EC	71	
134	ED	1134	ED	61	
135	EE	1135	EE	51	
136	EF	1136	EF	41	
137	EG	1137	EG	31	
138	EH	1138	EH	21	
139	EI	1139	EI	11	
140	EJ	1140	EJ	1	
141	EK	1141	EK	93	
142	EL	1142	EL	83	
143	EM	1143	EM	73	
144	EN	1144	EN	63	
145	EO	1145	EO	53	
146	EP	1146	EP	43	
147	EQ	1147	EQ	33	
148	ER	1148	ER	23	
149	ES	1149	ES	13	
150	ET	1150	ET	3	
151	EU	1151	EU	95	
152	EV	1152	EV	85	
153	EW	1153	EW	75	
154	EX	1154	EX	65	
155	EY	1155	EY	55	
156	EZ	1156	EZ	45	
157	FA	1157	FA	35	
158	FB	1158	FB	25	
159	FC	1159	FC	15	
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161	FE	1161	FE	97	
162	FF	1162	FF	87	
163	FG	1163	FG	77	
164	FH	1164	FH	67	
165	FI	1165	FI	57	
166	FJ	1166	FJ	47	
167	FK	1167	FK	37	
168	FL	1168	FL	27	
169	FO	1169	FO	17	
170	FP	1170	FP	7	
171	FQ	1171	FQ	99	
172	FR	1172	FR	89	
173	FS	1173	FS	79	
174	FT	1174	FT	69	
175	FU	1175	FU	59	
176	FV	1176	FV	49	
177	FW	1177	FW	39	
178	FX	1178	FX	29	
179	FY	1179	FY	19	
180	FZ	1180	FZ	9	
181	GA	1181	GA	91	
182	GB	1182	GB	81	
183	GC	1183	GC	71	
184	GD	1184	GD	61	
185	GE	1185	GE	51	
186	GF	1186	GF	41	
187	GG	1187	GG	31	
188	GH	1188	GH	21	
189	GI	1189	GI	11	
190	GJ	1190	GJ	1	
191	GK	1191	GK	93	
192	GL	1192	GL	83	
193	GM	1193	GM	73	
194	GN	1194	GN	63	
195	GO	1195	GO	53	
196	GP	1196	GP	43	
197	GQ	1197	GQ	33	
198	GR	1198	GR	23	
199	GS	1199	GS	13	
200	GT	1200	GT	3	

Prepared by: _____
 Checked by: _____
 Date: _____
WIDOW BENEFICIARY LIST
 Prepared by: _____
 Checked by: _____
 Date: _____

ABD ON COURSE ON "Manufacturing of Soap & Detergent"

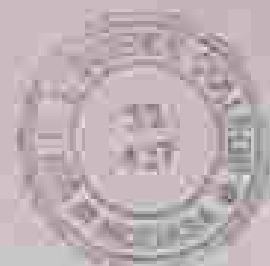
Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15-12-2023 to 02-01-2024

Registration Details

Sl. No.	Roll No.	Student Name	Sex	Mobile No.	Signature
1	2091	Maheshwar Jhalani Patel	M	9975879603	[Signature]
2	2095	Hiraj Dipakumar Upadhyay	M	9750326506	[Signature]
3	2012	Mangeshwar Kishorji Patel	M	9449019608	[Signature]
4	2008	Ashutoshwar Kishorji Patel	M	9752144614	[Signature]
5	2007	Vinodha Bhagwanji Patel	F	9828507015	[Signature]
6	2024	Parthivraj Dhanrajji Patel	M	9815105378	[Signature]
7	2000	Pratiksha Vinaykumar Parmar	F	9828507015	[Signature]
8	2009	Prayansh Anandkumar Vyas	M	9815105378	[Signature]
9	2210	Rishi Dhanrajji Patel	M	9815105378	[Signature]
10	2071	Vedant Maheshkumar Sonani	M	7688744511	[Signature]
11	2072	Krunal Maheshkumar Patil	M	835267759	[Signature]
12	2005	Rohitha Vinodkumar Shah	F	9828507015	[Signature]
13	2074	Rishabh Maheshkumar Patel	M	9828507015	[Signature]
14	2216	Sahil Anandkumar Kulkarni	M	9828507015	[Signature]
15	2277	Sanjaykumar Rajendra Patel	M	9828507015	[Signature]
16	2218	Sarveshwar Dhanrajji Patel	M	9828507015	[Signature]
17	2094	Sarveshwar Anandkumar Kulkarni	M	9828507015	[Signature]
18	2021	Dhruvraj Tejashwar Dhanraj	M	9828507015	[Signature]
19	2281	Shikha Anandkumar Mahapatra	F	9828507015	[Signature]
20	2254	Shreyanshi Yashwanth Prasad	F	9828507015	[Signature]
21	2282	Shreyanshi Tejashwar Dhanraj	F	9828507015	[Signature]
22	2006	Shubham Jayashankar Patel	M	9828507015	[Signature]
23	2287	Shubham Anandkumar Dhanraj	M	9828507015	[Signature]
24	2207	Shubham Anandkumar Dhanraj	M	9828507015	[Signature]
25	2213	Tanvi Tejashwar Dhanraj	F	9828507015	[Signature]
26	2280	Tanvi Anandkumar Patel	F	9828507015	[Signature]
27	2003	Vishal Anandkumar Anandkumar Patel	M	9828507015	[Signature]
28	2283	Vishal Anandkumar Dhanraj	M	9828507015	[Signature]
29	2206	Vijay Tejashwar Dhanraj	M	9828507015	[Signature]
30	2001	Vishal Anandkumar Patel	M	9828507015	[Signature]



Reference Books:

1. Industrial Chemistry by B.K. Sharma
2. Handbook of Industrial Chemistry
3. Soap making by Carol Varney
4. Soap Making Manual by E.G. Thomson

Grading:

The passing requirement for Add-On courses shall be 50% of the marks prescribed for the course. A candidate who has not secured a minimum of 50% of marks in a course shall not be awarded to the students depending on the percentage of marks obtained by a candidate in a course as below

Grade	Marks
A	25-30
B	20-25
C	15-20

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Final Examination

Time: 30 min.

Date: 02-01-2023

Marks: 30

Name of Student: _____

* Roll No. _____

1. Which base is used in saponification process? _____
2. Which oil is almost solid at room temperature? _____
3. Which glycerol was firstly used in soap? _____
4. What is used as moisturizing agent in soap making process? _____
5. Which acid found in cow's milk as well as goat's milk? _____
6. Full of this? _____
7. Which ions are present in hard water? _____
8. True or false? "Too much essential oil in soap is blotted" _____
9. Give one example of non-ionic detergent? _____
10. At what temp. Glycerol soap base is making? _____
11. It soap an acid or base? _____
12. To reduce scale & mineral deposit in hard water: _____ is added in water.
13. Classify the synthetic detergent: _____
14. What is another option of essential soap? _____
15. Which solvent is used in making transparent soap? _____
16. Drying soap formula: _____ is given by this formula.
17. NaOH based soap or KOH based soap. Which are the better for skin? _____
18. In which formation detergent not remove stain of grease & oil? _____
19. Which compound used to stabilize non-ionic detergents? _____
20. Which part of emulsifier attach with water? _____

10. What is the IMF value for grade 1 steel? _____

11. What is the IMF value for reproduction process of parents' steel of same size? _____

12. What type of message is used in their relationship? _____

13. What is the possible cause of steel? _____

14. What type of message is used in their relationship? _____

15. What type of message is used in their relationship? _____

16. How much time takes by sending the message? _____

17. What type of message is used in their relationship? _____

18. What is the cause of their relationship? _____

19. What type of message is used? _____

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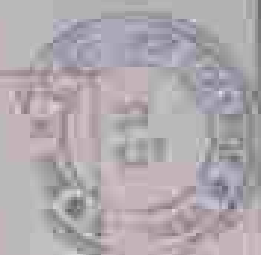
ADD ON COURSE ON "Manufacturing of Soap & Detergent"
 Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 15-12-2023 to 01-01-2024

Health Sheet

B.Sc Sem-4



No.	Roll No.	Student Name	Obtained Marks (No)	Grade
1.	2291	Abhinav Kumar Patel	27	A
2.	2292	Ashwini Deepanshu Upadhyay	19	B
3.	2002	Harshvardhan Chandra Patel	15	C
4.	2296	Pratiksha Anandkumar Patel	15	C
5.	2297	Arjun K. Bhargava Patel	26	B
6.	2023	Pratiksha Deepanshu Patel	21	C
7.	2298	Pratiksha Vinaykumar Patel	28	B
8.	2299	Priyanshu Bhupendra Patel	27	A
9.	2293	Neha Deepanshu Patel	24	B
10.	2271	Ashwin Maheshwari Kulkarni	25	B
11.	2272	Avishka Maheshwari Patel	25	B
12.	2025	Tanusha Vinaykumar Patel	24	B
13.	2274	Arjun Kumar Patel	21	B
14.	2275	Sahil Anandkumar Patel	25	A
15.	2277	Samir Anandkumar Patel	25	B
16.	2278	Sanjay Kumar Bhargava Patel	21	B
17.	2294	Samir Anandkumar Kulkarni	24	A
18.	2027	Shrutika Bhargava Patel	21	C
19.	2295	Mihir Anandkumar Kulkarni	27	B
20.	2294	Prerana Anandkumar Kulkarni	25	B
21.	2295	Prerana Anandkumar Patel	24	B
22.	2295	Shrutika Bhargava Patel	24	B
23.	2297	Shrutika Anandkumar Patel	21	A
24.	2298	Sudhakar Kulkarni Patel	21	B
25.	2298	Tanvi Bhargava Patel	14	C
26.	2299	Yashvi Anandkumar Patel	27	A
27.	2291	Prerana Anandkumar Kulkarni	29	B
28.	2292	Vishal Anandkumar Kulkarni	20	B
29.	2295	Pooja Bhargava Patel	27	A
30.	2011	Arjun Anandkumar Patel	18	C

Note: All Students are successfully completed the course and get certificate.



SIR P.T. SCIENCE COLLEGE, MODASA

Managed by
THE MILINDJIJI HIGHER EDUCATION SOCIETY / MODASA

Affiliated to The Gujarat State University, Gandhinagar, Gandhinagar, Gandhinagar

Accredited with Best Grade (2018) by AICTE, RAAC in the 2nd Cycle

Recognized by UGC, AICTE

A Grade (100%) by AICTE (2018)

ADD ON COURSE

"Manufacturing of Soap and Detergent"

Organized by Department of Chemistry

Certificate

This is to certify that Mr. Anil Kumar

Class SCITE, Semester II, Roll No. 2022 has

successfully completed 30 hours Add on Course

"Manufacturing of Soap & Detergent -2022-23" which

was organized by Department of Chemistry from

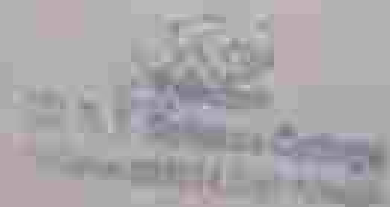
15-12-2022 to 02-01-2023 at college campus.


Dr. D. R. Prabhu
Course Co-ordinator


Dr. D. Prabhu
HOD, Dept. of Chemistry


S. K. Patel
Principal

Date: _____
Place: Modasa





**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE EXCEL TOOLS USED IN
MATHEMATICAL RESEARCH-I
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Excel Tools used in Mathematical Research-I

Course Code: 22MATAD01

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objectives: Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Excel Tools.

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Excel Tools used in Mathematical Research-I	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
80-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Excel Tools used in Mathematical Research-I"

Prepared by

Department of Mathematics

Sir P. T. Science College, Madhya

Course Co-Ordinator: Dr. K. N. Darji

Year: 2022-23

Date: 13-09-2022 to 30-09-2022

Unit 01: Introduction to Excel

- Introduction to Excel interface
- Understanding rows and columns, Naming Cells
- Working with Excel workbook and sheets
- New, Open, Close, Save, Save As
- Formatting Text: Font Size, Font Style
- Font Color, Use Bold, Italic, and Underline
- Wrap text, Merge, and Centre
- Currency, Accounting, and other formats
- Modifying Columns, Rows & Cells

Unit 02: Perform Calculations with Functions

- Creating Simple Formulas
- Setting up your own formulas
- Date and Time Functions, Financial Functions
- Logical Functions, Lookup, and Reference
- Functions Mathematical Functions
- Statistical Functions, Text Functions

Unit 03: Plotting of Graphs

- Plotting graphs of trigonometric functions
- Plotting graphs of inverse trigonometric function
- Plotting graphs of Polynomial equations

Unit 04: Sort and filter data

- Using number filter, Text filter
- Custom filtering
- Removing filters from columns
- Conditional formatting

Books for Reference:

1. "Excel Spreadsheets Manual for Applied Mathematics" by Stela Puha-Hozo, Indiana University Northwest, Pearson Publications.
2. "Microsoft Excel Data Analysis and Business Modeling" by Wayne L. Winston.

Course Outcomes:

Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis. They should be able to use Excel for tasks like organizing data, generating charts, and performing basic statistical analyses.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-I

Sl. No.	Roll No	Name Of Students	Gender	Sign
1	S401	ABHIRAM KUNAYINI PUNJARA	M	A. U. Punjara
2	S402	ALFIYASANI USMANANI VINDIA	F	Alfiya
3	S403	ANURAGKUMAR ELISHABETH SUVERA	M	A. E. Suvera
4	S404	ANURAG DILIPBHAI GAUDHARY	F	A. D. Gaudhary
5	S405	ATSHADBI SUSANMOMTASIDOMI IRFOLYA	F	Atshad
6	S406	BHARGAV DINESHBHAI CHAUDHARI	M	B. D. C.
7	S407	BRAVESHKUMAR JAYANTIDINI ZALA	M	B. J. Zala
8	S408	COPI NAYONARABEN SHARMA	F	C. N. Sharma
9	S409	HIMANI KANSHADRUMBAR SHARMA	F	H. M.
10	S410	JAYWINGLUNARI BECHARBHAI BHUMBARA	M	J. B. B.

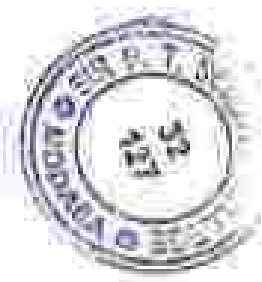



 Principal
Sir P. T. Science College
 Modasa - 383115, Dist. Arvali

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-I

Sl. No.	Name	Name of Student	Total Marks																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	MAIT	ANSHIKA YADAV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	MAIT	ADITHYAN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	MAIT	ANUSHKA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P




Principal
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Modasa-382014, Dist. Anand



**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE EXCEL TOOLS USED IN
MATHEMATICAL RESEARCH-II
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. T. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Excel Tools used in Mathematical Research-II

Course Code: 22MATAI02

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Excel Tools

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Excel Tools used in Mathematical Research-II	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent-A+
75-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Excel Tools used in Mathematical Research-II"

Prepared by

Department of Mathematics

Sir P. T. Science College, Modasa

Course Co-Ordinator: Dr. V. R. Patel

Year: 2022-23

Date: 02-01-2023 to 30-01-2023

Unit 01: Create Effective Charts to Present Data Visually

- Inserting Columns, Pie charts, etc.
- Create an effective chart with Chart Tool
- Design, Format, and Layout options
- Adding chart title
- Changing layouts
- Chart styles
- Editing chart data range
- Editing data series
- Changing chart

Unit 02 : Solving Equations

- Using the Quadratic Formula
- Using SOLVER
- Solving Equations Using Graphs

Unit 03 : Functions

- Calculating Numerical Expressions
- Using Function Notation
- Creating Function
- Graphing Function
- Piecewise Functions
- Finding Intersection Points
- Finding Maximum and Minimum

Unit 04: Exponential and Logarithmic Functions

- Evaluating Powers of e
- Evaluating Expressions Involving Logarithms

Books for Reference:

1. "Excel Spreadsheets Manual for Applied Mathematics" by Stela Fudis-Hyatt, Indiana University Northwest, Pearson Publication.
2. "Microsoft Excel Data Analysis and Business Modeling" by Wayne L. Winston.

Course Outcomes:

Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis. They should be able to use Excel for tasks like organizing data, generating charts, and performing basic statistical analyses.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-II

Sr.No.	Roll No	Name Of Students	Gender	Sign
1	5411	KAYSHI TAKESHKUMAR SOMI	F	V.P. Goni
2	5412	MAYURBASINI BALUPENDRASINI CHALSIAN	M	M. B. C.
3	5413	MITAJIBHEN BIRICHVAI PATEL	F	m. G. Patel
4	5414	MO ZAWI ZAKIRHUSEN KHURADA	M	m. Z. Khedkar
5	5415	PAVANKUMAR PRATAPRAJU DASHI	M	P. V. D.
6	5416	POPATRAI KALASHINI KIRANT	M	P. K. Kirant
7	5417	SAHAYKUMAR PRADHUMAS PARGI	M	S. P. P.
8	5418	ROHINIBEN BHARATOWAI PANCHAL	F	R. B. Panchal
9	5419	SUCHIT SHAILESHKUMAR CHAUDHARI	M	S. S. C.
10	5420	SAGAR DHARMENDR KUMAR VASAND	M	S. D. Vasand



Principal
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Modasa-383115, Dist. Arvad.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-II

Sl. No.	Roll No.	Name of Student	Total Examinations																															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	5011	MATHI PARSONKUMAR SONI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	5012	MOHINI KISHOR KALYANRAO SHAI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	5013	MITHUNKISHI SHEKHAR PATIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	5014	MURDANT DAMODAR SONZAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	5015	KAVYAKANWAR SHANTARAJ DADJI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	5016	VIPRAKISHI KALYAN PATIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	5017	KARTIKKISHOR PRADEEP PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	5018	ROHINI KISHOR SHANTARAJ PATIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	5019	RUCHIT SWALAMKUMAR CHAUDHARI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	5020	SADIKI SHANTARAJKUMAR VAJANI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P




Sir P. T. Science College
 Modasa
 Gujarat



**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE WORD TOOLS USED IN
MATHEMATICAL RESEARCH
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

DEPARTMENT OF MATHEMATICS

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA

COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Word Tools used in Mathematical Research

Course Code: 22MATA103

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: Students should understand how to use Word features to structure and organize their mathematical research papers effectively.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Word Tools.

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Word Tools used in Mathematical Research	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Word Tools used in Mathematical Research"

Prepared by

Department of Mathematics

Sir P. T. Science College, Modasa

Course Co-Ordinator: Dr. K. N. Darji

Year: 2022-23

Date: 03-02-2023 to 04-03-2023

Unit 01: Text Basics for Math Type Equations and saving file

- Typing the text, Typing Math Type equations, Alignment of text
- Editing Text: Cut, Copy, Paste, Select All, Clear
- Find & Replace
- New, Open, Close, Save, Save As

Unit 02 : Text Formatting

- Formatting Text: Font Size, Font Style
- Font Color, Use Bold, Italic, and Underline
- Change the Text Case
- Line spacing, Paragraph spacing
- Shading text and paragraph
- Working with Tabs and Indents

Unit 03 : Working with Objects

- Shapes, Clipart and Picture, Word Art, Smart Art
- Columns and Orderings - To Add Columns to a Document
- Change the Order of Objects
- Page Number, Date & Time
- Inserting Text boxes
- Inserting Word art
- Inserting symbols
- Inserting Chart

Unit 04 : Working with Data Tables

- Working with Tables, Table Formatting
- Table Styles
- Alignment option
- Merge and split option * Headers & Footers

Books for Reference:

1. "Microsoft Word 2019 For Dummies" by Dan Gookin
2. "MathType Cookbook" by Richard L. Evans and W. J. "Terry" Cody

Course Outcome:

Students should be able to create and format mathematical documents using Microsoft Word, including equations, symbols, and mathematical notation. They should understand how to use Word features to structure and organize their mathematical research papers effectively.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Word Tools used in Mathematical Research

Sr.No.	RollNo	Name Of Student	Gender	Sign
1	5421	SAHEENABANU MAHMMEDSHARIF BALOCH	F	S.M.S.
2	5422	SUNASIBIN BHARATKUMAR SATHVANA	F	S.S.
3	5423	SURAJGHANESINH KALUSINH DALA	M	S.D. Dala
4	5424	TARUNSINHI JENWARSINI DALA	M	T.J.D.
5	5425	VISHI KADHARIDHAI CHAUDHARI	F	V.K. Chaudhary
6	5426	ZAKARIYA BHAVESH KUMAR LIPADHWAY	F	Z.L.



Sir P. T. Science College
Modasa - 383115 Dist. Anand

SRI P. T. SCIENCE COLLEGE, MODASA

ADD-ON Course: WILSON'S OFFICE WORD TESTS used in Mathematical Research

S.No.	Roll No.	Name of Student	Word Test																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	5471	MAHESHVAR KUMAR DETHANAYAK	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	5472	SHUBHAM BHANUJI KUMAR SHIVANI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	5473	KUNJAN KISHOR BHILLANI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	5474	PARAG RAJ KUMAR JAIN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	5475	VAHINI JAGDISHKANTH CHAUDHARI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	5476	ANURAG KISHOR JAIN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P




Sri P. T. Science College
 Modasa-383212 Dist. Anand



**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE EXCEL TOOLS USED IN
MATHEMATICAL RESEARCH-I
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Excel Tools used in Mathematical Research-I

Course Code: 22MATAD01

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objectives: Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Excel Tools.

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Excel Tools used in Mathematical Research-I	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
80-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Excel Tools used in Mathematical Research-I"

Prepared by

Department of Mathematics

Sir P. T. Science College, Madhya

Course Co-Ordinator: Dr. K. N. Darji

Year: 2022-23

Date: 13-09-2022 to 30-09-2022

Unit 01: Introduction to Excel

- Introduction to Excel interface
- Understanding rows and columns, Naming Cells
- Working with Excel workbook and sheets
- New, Open, Close, Save, Save As
- Formatting Text: Font Size, Font Style
- Font Color, Use Bold, Italic, and Underline
- Wrap text, Merge, and Centre
- Currency, Accounting, and other formats
- Modifying Columns, Rows & Cells

Unit 02: Perform Calculations with Functions

- Creating Simple Formulas
- Setting up your own formulas
- Date and Time Functions, Financial Functions
- Logical Functions, Lookup, and Reference
- Functions Mathematical Functions
- Statistical Functions, Text Functions

Unit 03: Plotting of Graphs

- Plotting graphs of trigonometric functions
- Plotting graphs of inverse trigonometric function
- Plotting graphs of Polynomial equations

Unit 04: Sort and filter data

- Using number filter, Text filter
- Custom filtering
- Removing filters from columns
- Conditional formatting

Books for Reference:

1. "Excel Spreadsheets Manual for Applied Mathematics" by Stela Puha-Hozo, Indiana University Northwest, Pearson Publications.
2. "Microsoft Excel Data Analysis and Business Modeling" by Wayne L. Winston.

Course Outcomes:

Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis. They should be able to use Excel for tasks like organizing data, generating charts, and performing basic statistical analyses.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-I

Sl. No.	Roll No	Name Of Students	Gender	Sign
1	S401	ABHIRAM KUNAYINI PUNJARA	M	A. U. Punjara
2	S402	ALFIYASANI USMANANI VINDIA	F	Alfiya
3	S403	ANURAGKUMAR ELISHABETH SUVERA	M	A. E. Suvera
4	S404	ANURAG DILIPBHAI GAUDHARY	F	A. D. Gaudhary
5	S405	ATSHADBI SUSANMOMTASIDOMI IRDOLYA	F	Atshad
6	S406	BHARGAV DINESHBHAI CHAUDHARI	M	B. D. C.
7	S407	BRAVESHKUMAR JAYANTIDINI ZALA	M	B. J. Zala
8	S408	COPI NAVONHARABEN SHARMA	F	C. N. Sharma
9	S409	HIMANI KANSHADRUMBAR SHARMA	F	H. M.
10	S410	JAYWINGLUNARI BECHARBHAI BHUMBARA	M	J. B. B.

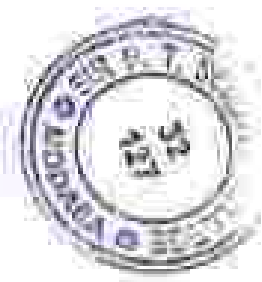



 Principal
Sir P. T. Science College
 Modasa - 383115, Dist. Arvali

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-I

Sl. No.	Name	Name of Student	Total Marks																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	MAIT	ANISHA KANWAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	MAIT	ADITHYAN KISHORJI KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	MAIT	ANUSHKA JAIN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	MAIT	ANUSHKA KUMAR CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P




Principal
Sir P. T. Science College
Modasa-382014, Dist. Anand



**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE EXCEL TOOLS USED IN
MATHEMATICAL RESEARCH-II
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. T. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Excel Tools used in Mathematical Research-II

Course Code: 22MATAI02

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Excel Tools

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Excel Tools used in Mathematical Research-II	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent-A+
75-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Excel Tools used in Mathematical Research-II"

Prepared by

Department of Mathematics

Sir P. T. Science College, Modasa

Course Co-Ordinator: Dr. V. R. Patel

Year: 2022-23

Date: 02-01-2023 to 30-01-2023

Unit 01: Create Effective Charts to Present Data Visually

- Inserting Columns, Pie charts, etc.
- Create an effective chart with Chart Tool
- Design, Format, and Layout options
- Adding chart title
- Changing layouts
- Chart styles
- Editing chart data range
- Editing data series
- Changing chart

Unit 02 : Solving Equations

- Using the Quadratic Formula
- Using SOLVER
- Solving Equations Using Graphs

Unit 03 : Functions

- Calculating Numerical Expressions
- Using Function Notation
- Creating Function
- Graphing Function
- Piecewise Functions
- Finding Intersection Points
- Finding Maximum and Minimum

Unit 04: Exponential and Logarithmic Functions

- Evaluating Powers of e
- Evaluating Expressions Involving Logarithms

Books for Reference:

1. "Excel Spreadsheets Manual for Applied Mathematics" by Stela Fudis-Hyatt, Indiana University Northwest, Pearson Publication.
2. "Microsoft Excel Data Analysis and Business Modeling" by Wayne L. Winston.

Course Outcomes:

Students should gain a good understanding of Excel functions and tools relevant to mathematical data analysis. They should be able to use Excel for tasks like organizing data, generating charts, and performing basic statistical analyses.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-II

Sr.No.	Roll No	Name Of Students	Gender	Sign
1	5411	KAYSHI TAKESHKUMAR SOMI	F	V.P. Goni
2	5412	MAYURBASINI BALUPENDRASINI CHALSIAN	M	M. B. C.
3	5413	MITALDASHEN BIPINDRA PATEL	F	M. G. Patel
4	5414	MO ZAWD ZAKIRHUSEN KHERRADA	M	M. Z. Khedker
5	5415	PAVANKUMAR PRATAPRAJU DASHI	M	P. V. D.
6	5416	POPATRAI KALASHINI KIRANT	M	P. K. Kirant
7	5417	SAHAYKUMAR PRADHUMAS PARGI	M	S. P. P.
8	5418	ROHINIDEN BHARATDRAI PANDHAR	F	R. B. Pandhar
9	5419	SUCHIT SHAILESHKUMAR CHAUDHARI	M	S. S. C.
10	5420	SAGAR DHARMENDRAKUMAR VASAND	M	S. V. Vasand



Principal
Sir P. T. Science College
Modasa-383115, Dist. Aravalli.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Excel Tools used in Mathematical Research-II

Sl. No.	Roll No.	Name of Student	Total Sessions																																				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
			1	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
3	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
4	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
9	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	SE13	MATHS BACHELOR (HONS) COM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P





**ADD-ON
CERTIFICATE COURSE
IN
MICROSOFT OFFICE WORD TOOLS USED IN
MATHEMATICAL RESEARCH
(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)**

Organized By

DEPARTMENT OF MATHEMATICS

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA

COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315

Course Type: Add-On Certificate Course

Course Name: Microsoft Office Word Tools used in Mathematical Research

Course Code: 22MATA103

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: Students should understand how to use Word features to structure and organize their mathematical research papers effectively.

Course Description: The course is best suited for students who want to gain their knowledge regarding Microsoft Office Word Tools.

Details of Course:

Paper	Total Marks -50	Passing Marks
Microsoft Office Word Tools used in Mathematical Research	Attendance -10 Marks Practical based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent A+
70-89	Very Good A
50-69	Good B
40-49	Fair C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Microsoft Office Word Tools used in Mathematical Research"

Prepared by

Department of Mathematics

Sir P. T. Science College, Modasa

Course Co-Ordinator: Dr. K. N. Darji

Year: 2022-23

Date: 03-02-2023 to 04-03-2023

Unit 01: Text Basics for Math Type Equations and saving file

- Typing the text, Typing Math Type equations, Alignment of text
- Editing Text: Cut, Copy, Paste, Select All, Clear
- Find & Replace
- New, Open, Close, Save, Save As

Unit 02 : Text Formatting

- Formatting Text: Font Size, Font Style
- Font Color, Use Bold, Italic, and Underline
- Change the Text Case
- Line spacing, Paragraph spacing
- Shading text and paragraph
- Working with Tabs and Indents

Unit 03 : Working with Objects

- Shapes, Clipart and Picture, Word Art, Smart Art
- Columns and Orderings - To Add Columns to a Document
- Change the Order of Objects
- Page Number, Date & Time
- Inserting Text boxes
- Inserting Word art
- Inserting symbols
- Inserting Chart

Unit 04 : Working with Data Tables

- Working with Tables, Table Formatting
- Table Styles
- Alignment option
- Merge and split option * Headers & Footers

Books for Reference:

1. "Microsoft Word 2019 For Dummies" by Dan Gookin
2. "MathType Cookbook" by Richard L. Evans and W. J. "Terry" Cody

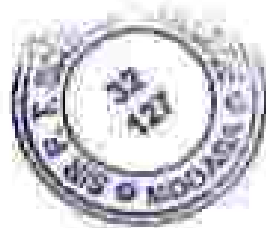
Course Outcome:

Students should be able to create and format mathematical documents using Microsoft Word, including equations, symbols, and mathematical notation. They should understand how to use Word features to structure and organize their mathematical research papers effectively.

SIR P. T. SCIENCE COLLEGE, MODASA

Add-On Course: Microsoft Office Word Tools used in Mathematical Research

Sr.No.	RollNo	Name Of Student	Gender	Sign
1	5421	SAHEENABANU MAHMMEDSHARIF BALOCH	F	S.M.S.
2	5422	SUNASIBIN BHARATKUMAR SATHVANA	F	S.S.
3	5423	SURAJCHANDRAN KALLUSINH ZALA	M	S.C.
4	5424	TARUNSINI JENWARSINI ZALA	M	T.J.Z.
5	5425	VISHI KADHARIDHAI CHAUDHARI	F	V.K.C.
6	5426	ZAKARIYA BHAVESH KUMAR LIPADHWAY	F	Z.L.



Sir P. T. Science College
Modasa - 383115 Dist. Anantnagar

SRI P. T. SCIENCE COLLEGE, MODASA

ADD-ON Course: WILSON'S OFFICE WORD TESTS used in Mathematical Research

S.No.	Roll No.	Name of Student	Word Test																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	5471	MAHESHVAR KUMAR DETHANDEY KADAM	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	5472	SHUBHANGI BHARADWAJ KUMAR KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	5473	KUNJAN KISHOR BHOSLE KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	5474	PARAG KISHOR BHOSLE KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	5475	ANSHU KISHOR BHOSLE KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	5476	ANURAG KISHOR BHOSLE KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

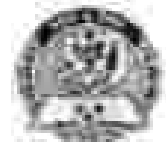



Sri P. T. Science College
 Modasa-383212 Dist. Amreli

Add-on Course on "BASIC ELECTRONICS TRAINING"

Registration Fee: Free

Last date: 15 Nov 2022



Organized by DEPARTMENT OF PHYSICS
Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of algebra and mathematics.
- Interested in learning electricity and electronics.
- Own a scientific calculator.

Description

"The BASIC ELECTRONICS TRAINING - makes electronics easy!"

This course includes Practical's and text explanations of everything in electricity and electronics, and it includes more than 8 Experiments with easy-to-understand explanations. "BASIC ELECTRONICS TRAINING" Course is organized into four sections:

- Basic concepts
- Basic laws
- Methods of analysis
- Experiments

Who this course is for:

- First year students of B.Sc.
- University, college or school students taking an electricity or electronics course.
- Anyone interested in gaining mastery of the core concepts of electrical and electronic Sciences.

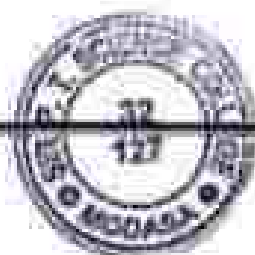
For Certification requires fulfillment, evaluation and presence.

Course Duration: 30 contacts

Course Commencement: From 1st December 2022

Course Coordinator:- Prof Girish Vekaria

HO:- Dr R. H. Parmar



Dr. R. H. Parmar
Modasa-372318, Dist. Anand.

Aims of the programme:

- To develop the skills required to gather information from resources and use them.
- To provide an intellectually stimulating environment to develop skills and enthusiasm of students to the best of their potential.
- To give need based education in physics of the highest quality at the undergraduate level.
- To offer courses to the choice of the students.
- To enable students to perform experiments and interpret the results of observation, including an assessment of experimental uncertainties.

Objectives:

By the end of the add on Course on "The BASIC ELECTRONICS TRAINING" the students should have attained a common level in basic of Electronics Circuit physics to complement the core for their future courses and developed their experimental and data analysis skills through experiments at laboratories.

SYLLABUS

Module 1 : Electronics & Electrical Components Identification

Vacuum tubes - Resistors- Capacitors- Batteries- switches-Diodes - Transistors - Integrated chips - Bread board - voltage supplies- multimeters

Module 2 : Uses of Electronics components in basic Electronic devices

Use of resistors and capacitors in a circuit- charging and discharging of capacitors- Uses of transistors transistor connections- Use of diodes- filter circuits- zener diodes- voltage regulators

Module 3 : Cathode Ray Oscilloscope operation

Identification of CRO knobs- Testing of CRO and PROBES- Measurements using CRO- Familiarization of Function Generators- Operation of Function Generator

Module 4 : Skill Development

Soldering of electronic components - Full wave & bridge rectifiers - power pack - manufacturing of LED bulbs

Books For Reference

1. Basic Electrical Engineering - V.K. Mehta & R.D. Mehta: (2006) - 2. Oersted publishers
2. Electrical Technology - Volume I - B.L. Theraja - O. Oersted publishers
3. Modern Electronic Principles (10th Ed) - M. E. Van Valkenburg - Tata McGraw Hill publishers




Dr P. T. ...
Modra-430018, Maharashtra



SIR P. T. SCIENCE COLLEGE MODASA – 383315

Registration

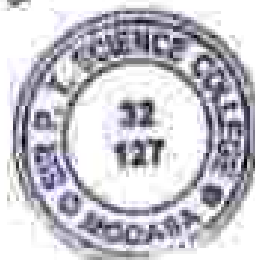
Add on course on Basic Electronics Training

1-12-2022 to 31-01-2023

Sl. NO.	NAME	Roll No.	Sign
1	Rinkaben Babubhai Darnor	1017	R.B. Darnor
2	Ronak Sunilkumar Chaudhary	1018	R. Chaudhary
3	Rutviben Dharmendrabhai Sagar	1019	R.R. Sagar
4	Suhilkumar Bharatbhai Patel	1020	S. B. Patel
5	Sumit Jivabhai Bhagora	1021	S. B. Bhagora
6	Sumitaba Arvindsinh Jadeja	1022	S. B. Jadeja
7	Tanvee Tarunkumar Kadla	1023	T. Kadla
8	Umeshkumar Kantibhai Pandor	1024	U. Pandor
9	Vivekkumar Dharmendrabhai Pagi	1025	V. Pagi
10	Vivekkumar Rasikbhai Khant	1026	V. Khant
11	Yashpalsinh Chhatrasinh Rathod	1027	Y. Rathod
12	Aamena AbdulRehman Bayadiya	1201	A. Bayadiya
13	Aamena Zakirhusen Patel	1202	A. Patel
14	Abhaykumar Surpalbhai Kotwal	1203	A. Kotwal


Prof. Girish Vekaria






Principal
Sir P. T. Science College
Modasa - 383315, Dist. Anand.

303 on course on Basic Electrostatics Training 1-12-2022 to 31-01-2023 Prof Girish Mishra

Sl. No.	Name of Student	Attendance																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	Abhinav Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Ashish Bhatnagar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Signature

Prof



Sir P. T. Science College
 Varanasi-221119, Distt. Varanasi.

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that _____ Class
B.Sc., Semester 1-2, Roll No. _____ has successfully
completed 30 Hours Add on certificate Course

"Basics of Electronics Circuits" organized by Department
of Physics from 1-12-2022 TO 31-01-2023 at college campus.

Course Co-ordinator

Head of Department Physics

Principal

Date: 3/02/2023

Place: MODASA





Sir P. T. Science College, Modasa

SYLLABUS FOR ADD-ON CERTIFICATE COURSE

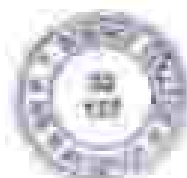
ON

Biodiversity and Forest Conservation

(EFFECTIVE FROM THE ACADEMIC SESSION 2022-23)

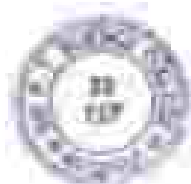
P. G. CENTER IN BOTANY

DEPARTMENT OF BOTANY




Principal
Sir P. T. Science College
Modasa-386001 (Gujarat)

- ▶ **Course Code:** BOTBFC 1
- ▶ **Year of Establishment:** 2022
- ▶ **Course Duration:** 30 hours
- ▶ **Entry Requirement :** 12th pass (Science) or
B.Sc. Student
- ▶ **Course Fees:** NIL
- ▶ **Course offered by:** Department of Botany
- ▶ **Seat Availability:** 25

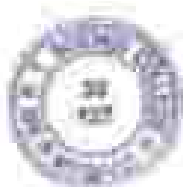


♣ Course Description:

This Course aims to raise awareness of the threats and challenges faced by forest and biodiversity to promote efforts for biodiversity and forest conservation and also for sustainable development. Preserving forest biodiversity will help us fight the climate crisis alleviate poverty, support human health.

Objectives:

- ▶ To educate students about nature conservation, forestry and forest.
- ▶ Creation of environmental awareness among all sectors of people.
- ▶ Creating awareness for protection and conservation of flora, fauna, forests and wildlife, biodiversity conservation.
- ▶ To promote the efficient use of forest resources.
- ▶ To provide long-term forest productivity and conservation of forest resources through reforestation, soil conservation, afforestation etc.
- ▶ Wildlife Habitat Management for In-situ and Ex-situ Conservation of wildlife.




Principal
P. T. Narayana College
Mysuru - 575 001 (K. A. S. Road)

► To protect water quality in streams, lakes, and other water bodies.

Course Outcomes:

► Students will be competent in basic forest management principles and evaluation of forest stands for health, wildlife habitat.

► Students will understand how the environment influences plant growth and crop yields, and ways to modify the environment to improve plant growth and yields.

► Students will be able to identify soil types and how they are formed and ways to modify soil structure and drainage to reduce erosion and improve water quality.

► Students will be able to know and Explain biodiversity, its threats and conservation methods. Gain in-depth knowledge on natural processes that sustain life. Predict the consequences of human actions on the web of life, global economy and quality of human life.

► Students will be able to develop critical thinking for determining strategies for environmental protection and conservation of biodiversity and sustainable development.

► Students will be able to participate actively in solving current environmental problems and preventing the future ones.




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Mangalore, Karnataka

► Students will be able to adopt sustainability as a practice in life.

Syllabus: Curriculum Basic certificate course in Biodiversity and Forest Conservation:

●Unit-1: Introduction to Biodiversity: Biodiversity: Species, genetic and ecosystem diversity, levels of biodiversity, Importance and biodiversity indices, values of biodiversity, hotspots of biodiversity, Factors Responsible for Loss of Biodiversity, Preservation and Conservation Strategies for Biodiversity, Endemic species and Endangered Species.

●Unit-2: Biodiversity conservation Biodiversity Conservation: 'Ex-Situ' Conservation, 'In-Situ' Conservation, Restoration of Wilderness and Green Cover, Methods of Conservation, Education awareness, biodiversity act 2002, Biological diversity rules, 2004.

●Unit-3: Introduction to Forest: Forest: Introduction, Classification and Importance of Forest. Introduction to Silviculture, Plant Growth Factors, Ecological Succession. Forest Soil: Soil and Soil Profile, Major soil types. Deforestation: Factors leading to deforestation and effects of deforestation,

●Unit-4: Forest Conservation Forest Measurement: Tree Form, Measurement of tree attributes, Community Based Forestry: Concept, scope, need and objectives of



Community Based Forestry, Types of social forestry, Bishnoi Community of Rajasthan, 'Chipko- Movement', Joint Forest Management (JFM), Forest (Conservation) Act, 1980, Indian forest Act (Revised) 1982

Total 10 classroom lectures of 1 hour duration

Total 20 Hours for Field Study

• Practical Based on Syllabus:

1. Visit to local forest
2. Study of medicinal plants of local area
3. Study of some endangered and endemic species.
4. Forest measurement
5. Importance of hotspots of biodiversity

Distribution of Marks:

Field Report: 20 Marks

Viva-voce: 10 Marks

Total Marks: 30 Marks




Principal
M. P. T. Science College
Bikaner

Mode of Assessment:

Written test (MCQ), Assignment/Field Report, Viva voce

Books and References Recommended

1. Forests in India, Dr. A. K. Jain Verha Publication, Allahabad (1989).
2. Remote Sensing for Environment and Forest Management: A. Mehrotra and R.K. Sati, Indus
3. Biodiversity: K. C. Agrawal, Agro Botanical Publishers, New Delhi, India (1996).
4. Environmental Biology: S.N. Prasad, Campus Books International, New Delhi (2000)
5. Environmental Biology: K. C. Agrawal, Agro Botanical Publisher, New Delhi, India (1993).
6. The Biological Diversity Act 2002 and Biological diversity rules 2004: National Biodiversity Authority INDIA, 475, 9th South cross street, Kalpalocwar Nagar, Neelangudi Chennai - 600041.
7. Biodiversity and Environment: - S.K. Agarwal, S. Tiwari and P.S. Dubey, 1996.
8. Fundamentals of Ecology: - E.P. Odum, Revised Edition 1995-96, Edition 2003.

9. Biodiversity Measurement and Estimation - D.L. Hawksworth Director International Mycological Institute Surrey, UK, Published: Chapman & Hall, London New York, Tokyo, Madras.

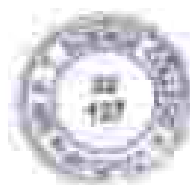
10. Ecology and Environment - P.D. Sharma, 1994.

11. Biodiversity Conservation - Global agreements and National Concerns, RAMSAR sites CBD, Quarantine, Regulation, National treaty policy Biodiversity Act wild life Act.

12. Biodiversity and environment - S. K. Agarwal.

► Gradation Pattern:

Percentage of marks obtained	Grade
90 -100	Excellent -A+
70-89	Very Good - A
50-69	Good -B
40 -49	Fair - C
Below 40	Not Eligible for Certificate - D




Principal
Dr. P. T. Sahasra College
Bapatla - 522 002



SIR P. T. SCIENCE COLLEGE, MOOKSA

DEPARTMENT OF BOTANY

ADD ON COURSE: BIODIVERSITY AND FOREST CONSERVATION

REGISTERED STUDENTS

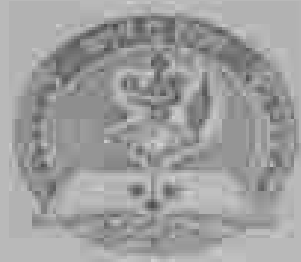
Sl. No.	Roll No.	Name	Gender	Sign
1	5315	SANJEEV PRAVINKUMAR VANKAR	Male	<i>[Signature]</i>
2	5316	SMIT NARSINHIBHAI ASARI	Male	<i>[Signature]</i>
3	5317	SNEHA RAKESHKUMAR DABGAR	Female	<i>[Signature]</i>
4	5318	TITHI RAJNIKANT ZEPARKAR	Female	<i>[Signature]</i>
5	5319	VHAYBHAI LALABHAI SANGADA	Male	<i>[Signature]</i>
6	5320	VIKRAMBHAI ANJANBHAI VAGADIA	Male	<i>[Signature]</i>



SRM P. T. SCIENCE COLLEGE, MOODSIA
DEPARTMENT OF BOTANY
ADD-ON COURSE: WOODPULP AND FOREST COORDINATION
REGISTERED STUDENTS:



Sl. No.	Name	Number of Attempts																												
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	SHANES P. SANKARAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	SMIT N. ASARI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	SHREYA H. DARGAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	THIRU L. JEEVANAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	SHRUTHI S. SANGARAJA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	VIRJUMITHA A. YADODIA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



SIR P. T. SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting of the following members was held on 13-09-2022 Tuesday at 12:00 noon to prepare the syllabus of add on course by History Department to be started in the college. The following members were present at the meeting:

The attached syllabus of 30 hours "ADD ON COURSE (IN: "Biodiversity and Forest conservation)" is approved by this committee after necessary discussion.

Sr. No.	Name of Members	Designation	Signature
1	DR. N. J. PATEL	Principal	
2	DR. S. S. VEDHYA	Head of the History Department	
3	DR. M. S. JAINPIL	St. Faculty Member	
4	DR. H. S. KHARWAN	St. Faculty Member	
5	DR. U. C. GUPTA	Faculty Member	
6	PROF. A. Z. CHAUDHARI	Faculty Member	


Principal
Sir P. T. Science College
Modasa-370115, Gujarat



Sir P. T. Science College, Modasa

SYLLABUS FOR ADD-ON CERTIFICATE COURSE

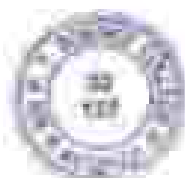
ON

ENVIRONMENT STUDIES

(EFFECTIVE FROM THE ACADEMIC SESSION 2022-23)

P. G. CENTER IN BOTANY

DEPARTMENT OF BOTANY

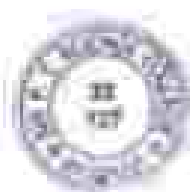



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Modasa-383001, Gujarat, India

• Course Code:	BOTES
• Year :	2023
• Course Duration:	3 Months
• Eligibility :	12 th pass (Science) or B. Sc. Student
• Hours:	Theory – 16 Hours Practical – 14 Hours
• Course Fees:	Rs. 150/-
• Course offered by:	Department of Botany
• Seat Availability:	25

Introduction

The environment is an important determinant of health and has a profound impact on why some people are healthy and others are not. Environmental determinants of health and disease are pervasive and integral to the assessment, diagnosis, intervention, planning, and evaluation components of nursing practice. However, environmental factors that affect health are commonly overlooked in routine patient assessments. When environmental health concerns are missed, an opportunity for prevention is lost, and public health is less well served. The code suggests that as part of ethical practice, registered nurses may undertake the ethical Endeavour's of "supporting environmental preservation and restoration and advocating for initiatives that reduce environmentally harmful practices in order to promote health and wellbeing" and "maintaining awareness of broader global health concerns such as environmental pollution,



Goals :

1. Able to understand about earth processes, alternative energy system, pollution control and mitigation, natural resource management.
2. Able to know about biodiversity and its conservation, social issues and the environment, human population and the environment.
3. To do the field work – to visit a local area to document environmental assets, polluted site, to study on common plants, insects, birds, and to study on simple ecosystem.

Course objectives:

On completion of this course the learner will be able to

- Identify the multidisciplinary nature of environmental studies
- Enumerate the renewable and non-renewable resources
- Express their knowledge on ecosystem
- Explain biodiversity and its conservation
- Identify the causes, effects and control measures of environmental pollution
- Find out the different types of social issues and environmental legislation
- Explain regarding effects of environment on human health
- Demonstrate their skills in doing field work

Scope :

In today's world because of industrialization and increasing population, the natural resources has been rapidly utilized and our environment is being increasingly



degraded by human activities, so we need to protect the environment. It is not only the duty of government but also the people to take active role for protecting the environment, so protecting our environment is economically more viable than cleaning it up once, it is damaged. The role of mass media such as newspapers, radio, television, etc is also very important to make people aware regarding environment.

Course Overview:

This course on environmental studies

Unit	Content	Theory Hours	Practical Hours
I	Multidisciplinary nature of environmental studies	2	1
II	Natural Resources	3	2
III	Ecosystems	2	1
IV	Biodiversity and Its Conservation	2	1
V	Environmental Pollution	2	1
VI	Social issues and the Environment	3	1
VII	Human Population and The Environment	2	1
VIII	Field Work		6

Process of Continuous Assessment and Grading:

It will be based on the following:

- ▶ Attendance of the students
- ▶ Continuous assessment in both theoretical class and practical
- ▶ Multiple Choice Questions



- ▶ Viva – voice
- ▶ Project report

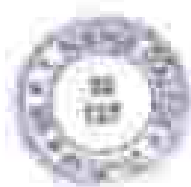
Examination Pattern:

- Multiple Choice Question – 10 Marks
- Viva-voice – 10 marks
- Field work – 20 marks

Total marks: 40

Gradation Pattern:

Percentage of marks obtained	Grade
90 - 100	Excellent - A+
70 - 89	Very Good - A
50 - 69	Good - B
40 - 49	Fair - C
Below 40	Not Eligible for Certificate - D





SIR P. T. SCIENCE COLLEGE, MODASA

DEPARTMENT OF BOTANY

ADD ON COURSE: ENVIRONMENT STUDIES

REGISTERED STUDENTS

Sl. No.	Roll No.	Name	Gender	Sign
1	5301	Alpesh Keshabhaji Baniya	Male	A.K.B.
2	5302	Anjaliben Kishorin Labana	Female	A.N.L.
3	5303	Ashishbhai Hanishbhai Katara	Male	A.H.K.
4	5304	Daxuben Vaghavbhai Dattar	Female	D.V.D.
5	5305	Dhanrajsinh Jaydipsinh Pathod	Male	D.J.P.
6	5306	Harsh Haldevbhai Barot	Male	H.H.B.
7	5307	Hirani Ghanshyamsinh Khant	Female	H.G.K.


Principal

Sir P. T. Science College
Modasa - 387 001 Dist. Anand

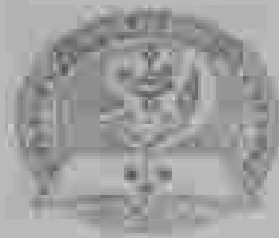


BSc P.T. Science College, Moga
 DEPARTMENT OF BOTANY
 AND ONE COURSE- ENVIRONMENT STUDIES
 ATTENDANCE SHEET



Sl. No.	Name	Number of lectures																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
1	Mpreet K. Dhotra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Amalbeer K. Lalwani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	CONCHANNIT Kaur	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Deepika V. Dhanraj	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Dhruvanshika K. Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Hemshi H. Hanees	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Harpreet G. Nijam	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

BSc P.T. Science College
 MOGA - 142001, PUNJAB
 123



SRI P. Y. SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting of the following members was held on 15-08-2023 Tuesday at 12:00 noon to prepare the syllabus of B.A. in course in History Department to be started in the subject. The following members participated in this meeting.

The attached syllabus of B.A. in course "ADD ON COURSE ON: "Environmental Studies" is approved by this committee after extensive discussion.

No.	Name of Member	Designation	Signature
1	Dr. K. P. VATHI	Principal	
2	Dr. S. S. VISHVA	Head of the History Department	
3	Dr. A. S. TAPAS	Sr. Faculty Member	
4	Dr. H. S. KHAPADE	Sr. Faculty Member	
5	Dr. L. C. GUPTA	Faculty Member	
6	DR. J. Z. CHANDRAN	Faculty Member	

P. Y. Education College
Modasa-383015 Dist. Anand

ADD ON COURSE

ON

"Food Adulteration"

DATE: 15-12-2022 to 02-01-2023

Duration: 30 Hours

Number of Total Students: 30



Organized By:

DEPARTMENT OF CHEMISTRY

SIR P.T.SCIENCE COLLEGE, MODASA



Course Objectives:

- i. To aware students about basic idea on various foods and about adulteration.
- ii. To know about adulteration of common foods and their adverse impact on health
- iii. To develop the skills of detecting adulteration of common foods.
- iv. To able to extend their knowledge for remedial measures for common food adulterants.



SRM JSCIENCE COLLEGE, MADRAS

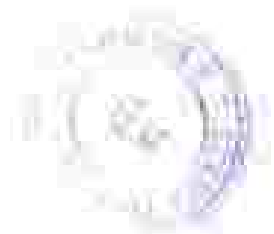
Minutes

A meeting of the committee consisting of the following members was held on 14.10.2022 at 10.00 am to discuss the syllabus of add on course of Chemistry Department to be started in the college. The following members were present in the meeting.

The attached syllabus of 48 hours "ADD ON COURSE ON 'Food Adulteration' 2023" approved by the committee after intensive discussion.

Sl. No.	Name of Members	Designation	Signature
1	Dr. R. P. KATTA	Principal	
2	Dr. S. S. VEDHA	Head of the Botany Department	
3	Dr. G. J. V. KANAKA	PGWC Coordinator	
4	Dr. H. R. THIRUANI	Food & Drug Chemistry Department	
5	Dr. R. P. RAJENDRAN	Head of the Physics Department	
6	Dr. S. S. PAVAN	Associate Professor	
7	Dr. M. P. GONGIWALA	PGWC Charge Chemistry Department	
8	Dr. S. M. RAMI	Associate Professor	
9	Dr. J. H. PATIL	Associate Professor	

Course Co-ordinator: Dr. M.P. Gongiwala



ADD ON COURSE ON "Food Authentication" 2022-23

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15-12-2023 to 01-01-2024

Registration Details

No.	Roll No.	Student Name	Class	Signature
1	10	Pankaj Choudhary B.	VI	[Signature]
2	11	Patel Dhruvan Sahibdas	VI	[Signature]
3	12	Patel Dalipbhai Ananddas	VI	[Signature]
4	13	Patel Manojkumar Surendrabhai	VI	[Signature]
5	14	Prakash Dinesh S.	VI	[Signature]
6	15	Ravi Jayantiben K.	VI	[Signature]
7	16	Patel Jyoti Parshadbhai	VI	[Signature]
8	17	Rohit Jayantiben Jayantiben	VI	[Signature]
9	21	Prakash Rajendran S.	VI	[Signature]
10	28	Maheshwari Khushboo L.	VI	[Signature]
11	21	Ravi Khushboo Maheshwari M.	VI	[Signature]
12	22	Khand Karan Kumar A.	VI	[Signature]
13	28	Vijay Mahesh Kumar A.	VI	[Signature]
14	24	Patel Manojkumar Babubhai	VI	[Signature]
15	26	Chavan Parth Yogeshbhai	VI	[Signature]
16	27	Talati Pooja Kumar B.	VI	[Signature]
17	28	Saxena Prashant B.	VI	[Signature]
18	29	Pag Prakash N.	VI	[Signature]
19	30	Rajpat Pruthviraaj V.	VI	[Signature]
20	31	Patel Pankaj Sanjay Kumar	VI	[Signature]
21	32	Deshai Kanchana Shrawant	VI	[Signature]
22	32	Patel Rajat Rajubhai	VI	[Signature]
23	34	Chavan Parth Lokesh	VI	[Signature]
24	35	Mishra Gyanika J.	VI	[Signature]
25	37	Saxena Pruthviraaj Shrawant	VI	[Signature]
26	38	Ravi Sanjay Kumar A.	VI	[Signature]
27	39	Latake Samirbhai M.	VI	[Signature]
28	40	Zala Saurabh Kumar Rajendra	VI	[Signature]
29	41	Patel Surbhan S.	VI	[Signature]
30	42	Prakash Tushar Kumar S.	VI	[Signature]

ADD ON COURSE ON "Food Adulteration" -2022-23

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 15-12-2022 to 02-01-2023

Course Duration: 10 Hours

Course Syllabus

UNIT-I: Common Foods and Adulteration:

(07hrs)

Common Foods subjected to Adulteration – Adulteration, Definition, Types, Poisonous substances, Foreign matter, Cheap substitutes, Spoiled parts, Adulteration through Food Additives – intentional and incidental. General Impact on Human Health.

UNIT-II: Methods of Detecting Adulterants:

(10 hrs)

Means of Adulteration Methods of Detection Adulterants in the following Foods: MILK, Coffee, Oil (Dhal), Ghee (Pulses), Sugar, Spices (Chilli powder, Turmeric, cardamom) and condiments, Processed food, fruits and vegetables. Analysis of preservative and coloring materials, text enhancing, sweetening (artificial materials) (veg).

UNIT-III: Present Laws and Procedures on Adulteration:

(08hrs)

Basic Highlights of Food Safety and Standards Act 2006 (FSSAI) Food Safety and Standards, Authority of India's Rules and Procedures of Local Authorities.

Role of statutory agencies such as: Agrmark, ISI, Quality control laboratories of companies, Private testing laboratories, Quality control laboratories of consumer co-ops/associations.

Consumer education, Consumer protection rights and responsibilities, COPRA 2020

Offences and Penalties Procedures to Complain Compensation to Victims.

UNIT-IV: Recommended Co-curricular Activities (including Hands on Exercises): (02hrs)

1. Collection of information on adulteration of some common foods from local market
2. Demonstration of Adulteration detection methods for a minimum of 5 common foods (one method each)
3. Invited lecture/training by local expert
4. Assignments, Group discussion, Quiz etc.



APPROVED COURSE FOR ADDITIONAL CREDIT

2022 Authorization

Provided by

Department of Nursing

COURSE CATALOG # N 417 (NURSING)

Year 2022-23

@ F. T. Lewis College, Missouri

Date 12-15-2022 to 12-31-2022

Course Syllabus (30 Hours)

UNIT 1: General Nursing Authorization

20%

Student must complete all units prior to authorization. Student must maintain minimum 2.0 GPA. This authority expires on 12/31/2022 and will require renewal for future years based on state requirements.

UNIT 2: Review of Nursing Authorization

10%

Review of all course materials in Department including all nursing courses. This unit is required for all nursing students. This unit is required for all nursing students. This unit is required for all nursing students.

UNIT 3: Review of the Procedures in Authorization

10%

Review of all procedures in authorization. This unit is required for all nursing students. This unit is required for all nursing students. This unit is required for all nursing students.

UNIT 4: Authorization of Additional Courses (Including Review of Procedures)

20%

- 1. Review of all procedures in authorization.
- 2. Review of all procedures in authorization.
- 3. Review of all procedures in authorization.



SIR P.T. SCIENCE COLLEGE, MODASA
ADD ON COURSE ON "Food Adulteration"

Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit 1	Common Foods and Adulteration; Common Foods subjected to Adulteration: Adulteration, Definition, Toxic, Poisonous substances, Foreign matter, Cheap substitutes, Spoiled parts: Adulteration through Food Additives: intentional and incidental. General Impact on Human Health	(7hrs)
Unit 2	Methods of Detecting Adulterants: Means of Adulteration Methods of Detection Adulterants in the following Foods: Milk, Coffee, Oil (Ghee), Gram pulses) , Sugar, Spices (Chilli powder, turmeric, coriander) and condiments, Processed food, fruits and vegetables. Analysis of preservative and coloring materials, test enhancing, sweetening flavoring materials (frag).	(10hrs)
Unit 3	Present Laws and Procedures on Adulteration Basic Highlights of Food Safety and Standards Act 2006 (FSSAI) Food Safety and Standards Authority of India's Rules and Procedures of Local Authorities. Role of voluntary agencies such as, Agmark, ISI, Quality control laboratories of companies, Private testing laboratories, Quality control laboratories of consumer cooperatives. Consumer education, Consumer problem rights and responsibilities, CPRA 2015. Offences and Penalties Procedures to Complain Compensation to victims.	(10hrs)
Unit 4	Recommended Co-curricular Activities (Including Hands on Experiments) 1. Collection of information on adulteration of some common foods from local market 2. Demonstration of Adulteration detection methods for a minimum of 4 common foods (one method each) 3. Invited lecture/Visiting by local expert 4. Assignments, Group discussions, Quiz etc	(13hrs)



ADD ON COURSE ON "Food Adulteration" -2022-23"

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15-12-2022 to 07-01-2023

Registration Form

1. Name of Student: Patel Pooja A.
2. Address: Modasa.
3. E-mail ID: lpunit@ymail.com
4. Mobile Number:
5. Semester of Study: MSc Sem.-II
6. Subject: Chemistry
7. Roll No.:
8. Academic Year: 2023
9. Enrollment No: 32035
10. Average of CGPA of all previous semesters:

Date:

Place: Modasa


Signature of Student

"ADD ON COURSE ON: "Food Adulteration"

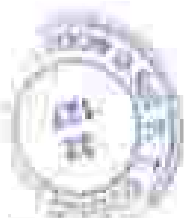
Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15-12-2022 to 02-01-2023

Programme (Time-Table)

Date	Time	Activity	Name of Expert
15/12/2022	8.0 am to 10.0 am	Introduction of course-unit I	Principal & Chemistry Staff
16/12/2022	8.0 am to 10.0 am	Theory Unit I	Dr. M.P. Gongiwala
17/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. S.V. Patel
19/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. D. R. Fudani
20/12/2022	8.0 am to 10.0 am	Theory Unit II	Dr. M.P. Gongiwala
21/12/2022	8.0 am to 10.0 am	Theory Unit II	Dr. J.N. Patel
22/12/2022	8.0 am to 10.0 am	Theory Unit II	Dr. S.M. Dave
23/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. D. R. Fudani
24/12/2022	8.0 am to 10.0 am	Theory Unit III	Dr. S. V. Patel
26/12/2022	8.0 am to 10.0 am	Theory Unit III	Dr. J.N. Patel
27/12/2022	8.0 am to 10.0 am	Theory Unit III	Dr. D. R. Fudani
28/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. J. N. Patel
29/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. S. M. Dave
30/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. S. V. Patel
31/12/2022	8.0 am to 10.0 am	Practical Unit IV	Dr. M.P. Gongiwala
2/1/2023	8.0 am to 10.0 am	Viva & Test	





Reference Books:

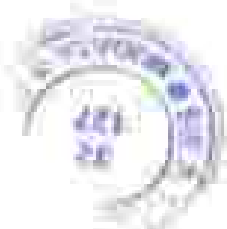
1. Colakshami R. Food Science 4th Edition. New Age International
2. Srivastava, P. K. and Puri, S. 1996. Fruit and vegetable preservation: principles and practice. 2nd Edition. International text publishing Co., Lucknow. 4
3. Mohan Sethi and Erani C. Puri. Food Science: experiments and applications. CBS publishers. 4. Paghuramulu, N., Mathanani Ram, P., and Kalyanavandaram, S. Ed. 1981.
5. A Manual of Laboratory Techniques. National Institute of Nutrition, ICR, Hyderabad.
6. Weiser, I.M. 1996. Principles of Dairy Processing. Mary Taylor Ltd. New Delhi.
7. Jay, I.M. "Modern Food Microbiology". 4th Edition. CBS Publishers, 2001.
8. Adams, M.A and M.G. Moss. "Food Microbiology". New Age International, 2002.
9. Manny, Jim and Stewart Truscott "Essentials of Human Nutrition", 4th Edition. Oxford, University Press, 2003.
10. Gibney, Michael J., et al. "Introduction to Human Nutrition", 2nd Edition. Blackwell, 2009.
11. Gropper, Steven S. and Jack L. Smith "Advanced Nutrition and Human Metabolism". 5th Edition. Wadsworth Publishing, 2008.



Grading:

The passing requirement for Add-On courses shall be 50% of the marks prescribed for the course. A candidate who has not secured a minimum of 50% of marks in a course shall not be awarded to the students depending on the percentage of marks obtained by a candidate in a course as below.

Grade	Marks
A	15-20
B	10-15
C	5-10



ADD ON COURSE ON "Food Adulteration"

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Final Examination

Time: 30 min.

Date: 02-01-2023

Marks: 20

Name of Student: _____

Roll No. : _____

1. Food adulteration is described as the activity of adulterating food or contaminating food ingredients by introducing a few compounds together referred to as the?

- a) Adulterants b) Decomposed c) Nutrients d) Consumption

2. The addition of these adulterants lowers the _____ value of food.

- a) Substance b) Quality c) Nutrients d) Quantity

3. Which of the following is a coffee powder adulterant?

- a) Water and starch powder b) Artificial colouring agents
c) Over chemical and Lead Chromate d) Chicory, somerset seeds powder

4. This approach uses plasmolysis to dehydrate microbial cells, causing them to perish.

- a) Heating b) Smoking c) Pasteurisation d) Sugaring

5. The term "added substance" refers to a substance that is added with the goal of affecting the nature and quality of food.

- a) Food poison b) Food adulterant c) Food material d) Food contaminant

6. PFA is abbreviated as

- a) Prevention of Food Act b) Protection of Food Act
c) Prevention of Food Adulteration Act d) None of the above

7. Which of these is a Honey Adulterant?

- a) Washing soda, chalk powder b) Molasses, dextrose, sugar and corn syrup
c) Pumpkin pulp, non-edible artificial colours, and flavours d) Cassia bark

8. When does the PFA Act say that food is adulterated?

- a) If it is obtained from a diseased animal b) If spices are sold without their essence
c) If any ingredient is injurious to health d) All of the above

9. What is an example of a biological hazard?

(b) adulterated

(c) misbranded

(d) None

16. All are soft cheeses except firm quality cheese that are traditionally added to salad for moisture, as well as:

(a) Cottage cheese

(b) Ricotta cheese

(c) Mozzarella

(d) Feta cheese

17. According to Section 1 of the Food Safety & Inspection Act (FSMA), if a food item offered to the consumer contains any additive to disguise compliance, whether entirely or partially, that are listed by name for such food products are referred to as "food additives."

(a) Substandard

(b) Misbranded

(c) Partially misbranded

(d) None

18. Which one of the following is a contaminant?

(a) Lead

(b) Dioxin

(c) Non-Riboflavin

(d) All of the mentioned

19. Adulterated means at what (100%) in the presence of water:

(a) Moisture

(c) Soluble

(d) 2% of the moisture

20. What are the reasons for the addition of adulterants? (a) To extend the life of items (b) To increase cost (c) To sell lesser quantity at the same price

(d) To improve flavor, taste and appearance (e) All the mentioned

21. Adulterated detection methods include:

(a) Visual tests

(b) Chemical tests

(c) Physical tests

(d) All of the mentioned

22. _____ is a material that is added to food with the goal of changing its nature and quality.

(a) Food preservative

(b) Food adulterant

(c) Food contaminant

(d) Food nutrient

23. This statement about Potassium Bromate is/are true:

- Potassium bromate is a category 2B carcinogen.
- Potassium bromate imparts dough strength, resulting in faster rising and a more uniform loaf with a soft crumb.
- They are allowed up to 50 parts per million by the Food Safety and Inspection Service (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

(a) (b)

(c) (d)

(e) (f)

(g) All of these

24. Which of the following methods is/are essential with the following, thereby killing them?

(a) Smoking

(b) Spicing

(c) Heating

(d) All of these

25. All the following techniques are household preservation techniques except:

(a) Smoking

(b) Lymphatization

(c) Dehydration

(d) Curing

26. Pasteurization is the process of heating milk:

(a) Above 120°C

(b) Above boiling point

(c) Below boiling point

(d) Above 75°C

***ADD ON COURSE ON: "Food Adulteration"**

Organized by Department of Chemistry

SRI P.T. SCIENCE COLLEGE, MODASA,

Date: 15-12-2022 to 02-01-2023

No.	Roll No.	Student Name	Mark Out Of 20	Grade
1	10	Kunjal Dineshkumar B.	18	A
2	11	Patel Dhruvan Sachinlal	16	A
3	12	Patel Divyanshu Jyotibhai	15	A
4	13	Patel Hiteshben Surendrabhai	10	B
5	14	Pralapati Divya S.	12	B
6	15	Ravi Jankiben P.	15	A
7	16	Patel Jayram Narasimhasai	18	A
8	17	Rathod Jaykumar Jayantibhai	16	A
9	18	Pratapji Kalyankumar B.	14	B
10	19	Maheshwari Khushubhen L.	15	A
11	21	Belin Khushbunabai M.	17	A
12	22	Khami Krunalumar A.	16	A
13	23	Vyas Mahimadkumar A.	13	B
14	24	Patel Navinben Rajkubhai	15	A
15	26	Chaudhari Parth Yogendrakumar	12	B
16	27	Patel Piyushkumar P.	10	A
17	28	Solanki Prabhakar B.	17	A
18	29	Poo Pratik H.	10	B
19	30	Rajpal Prithvira V.	19	A
20	31	Patel Parviben Sanjaykumar	16	A
21	32	Desai Keshava Himanshu	17	A
22	33	Patel Rajul Gajjibhai	16	A
23	34	Chaudhari Parth Udaysh	14	B
24	35	Shinde Ujendra J.	18	A
25	37	Vaidya Nituben Manojkumar	13	B
26	38	Patel Sahilkumar H.	12	B
27	39	Ladava Samirbhai M.	16	A
28	40	Sahu Santoshkumar Paritosh	10	B
29	41	Patel Swishen S.	14	B
30	42	Pratapji Tulshikumar S.	15	A

Note: All Students have successfully completed the course and get certificate.



[Signature]
Date: 02/01/2023

SIR P.T.SCIENCE COLLEGE, MODASA

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THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B+' Grade (2.83 CGPA) by NMAC in the 2nd Cycle
Status awarded by UGC AND
'A' Grade (CGPA 3.01) in AAN by NCE (Govt. of Gujarat)

ADD ON COURSE

"Food Adulteration"

Organized by Department of Chemistry

Certificate

This is to certify that Satish Patel Sangarshikha
Class VI Semester II Roll No. 81 has
successfully completed 30 hours Add on Course "Food
Adulteration-2022-23" which was organized by
Department of Chemistry from
15-12-2022 to 02-01-2023 at college campus.


Dr. M.P. GONGRIVALA
Course Co-Ordinator


Dr. M.P. GONGRIVALA
UGCE Dept. of Chemistry


Dr. K.P. PATEL
Principal

Date:
Place: Modasa



Principal
Sir P.T. Science College
Modasa, Gujarat

DATE: 15/12/2023

Sl. No.	Expt. No.	Expt. Name	Apparatus	Principle	Procedure	Observation	Result	Conclusion
1	1	Preparation of Ethyl Ethanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Ethanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Ethanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl ethanoate is formed.	
2	2	Preparation of Ethyl Methanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Methanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Methanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl methanoate is formed.	
3	3	Preparation of Ethyl Propanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Propanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Propanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl propanoate is formed.	
4	4	Preparation of Ethyl Butanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Butanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Butanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl butanoate is formed.	
5	5	Preparation of Ethyl Pentanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Pentanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Pentanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl pentanoate is formed.	
6	6	Preparation of Ethyl Hexanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Hexanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Hexanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl hexanoate is formed.	
7	7	Preparation of Ethyl Heptanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Heptanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Heptanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl heptanoate is formed.	
8	8	Preparation of Ethyl Octanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Octanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Octanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl octanoate is formed.	
9	9	Preparation of Ethyl Nonanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Nonanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Nonanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl nonanoate is formed.	
10	10	Preparation of Ethyl Decanoate	Round bottom flask, Refluxing condenser, Heating mantle, Delivery tube, Receiver flask	Reaction of Decanoic acid and Ethanol in presence of concentrated sulphuric acid as catalyst.	1. Weigh 10g of Decanoic acid and 10g of Ethanol in a round bottom flask. 2. Add 5ml of concentrated sulphuric acid. 3. Attach refluxing condenser and delivery tube. 4. Heat the mixture in a water bath at 60°C for 30 minutes. 5. Collect the ester in a receiver flask.	Colorless, sweet-smelling liquid.	Ethyl decanoate is formed.	

CHEMISTRY DEPARTMENT
 SRI P. T. SCIENCE COLLEGE, MIDOLSA
 DATE: 15/12/2023 (12/07/2023)



ADD-ON

CERTIFICATE COURSE

IN

FOOD TECHNOLOGY

(EFFECTIVE FROM ACADEMIC YEAR 2021-2022)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** FOOD TECHNOLOGY
- **Course Code:** 22UGMICR10
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:** 10
- **Aim and Objective:** To understand the history and evolution of food processing.
 - To study the structure, composition, nutritional quality and post harvest changes of various plant foods.
 - To study the structure and composition of various animal foods.
- **Course Description:** Food technology course is a branch of Engineering that deals with the techniques involved in the production, processing, preservation, packaging, labeling, quality management, and distribution of food products. The field also involves techniques and processes that transform raw materials into food. Extensive research goes toward making food items edible as well as nutritious.
- **Details of course:**

Paper	Total Marks	Passing Marks
FOOD TECHNOLOGY	100 marks mcq based test	40 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
80-100	Excellent A+
70-80	Very Good A
50-69	Good B
40-49	Fair C
Below 40	Not eligible for certificate-D

FOOD TECHNOLOGY

Prepared by

Department of Microbiology

Sir P. T. Science College, Madasa

Course Co-Ordinator-DR.K.K.PATEL

Year: 2021-22

DATE:01-01-21 to 29-01-21

(For the all UG students admitted from the academic year 2021-2022)

Course Code: 22UGM/CBO10

Course Duration: 30 Hours

UNIT 1 Introduction (4 lectures)

- Historical evolution of food processing technology.

UNIT 2 Compositional, Nutritional and Technological aspects of Plant foods

I. Cereals and Millets

- Structure and composition of cereals
- Wheat- structure and composition, types (hard, soft/ strong, weak)
Diagrammatic representation of longitudinal structure of wheat grain.
- Mating, gelatinization of starch, types of browning- Maillard & caramelization.
- Rice- structure and composition, parboiling of rice- advantages and disadvantages.

I. Pulses

- Structure and composition of pulses, basic constituents in pulses, processing of pulses-soaking, germination, decontamination, cooking and fermentation.

II. Fats and Oils

- Classification of lipids, types of fatty acids - saturated fatty acids, unsaturated fatty acids, essential fatty acids, trans fatty acids.

Refining of oils, types- steam refining, alkali refining, bleaching, steam deodorization, hydrogenation.

- Rancidity - Types- hydrolytic and oxidative rancidity and its prevention.

IV. Fruits and Vegetables

□ Classification of fruits and vegetables, general composition, enzymatic browning, names.

and sources of pigments, Dietary fibre.

Post harvest changes in fruits and vegetables – Climacteric rise, horticultural maturity,

physiological maturity, physiological changes, physical changes, chemical changes,

pathological changes during the storage of fruits and vegetables.

UNIT 3 Compositional, Nutritional and Technological aspects of Animal foods

I. Flesh Foods - Meat, Fish, Poultry

□ Meat - Definition of carcass, concept of red meat and white meat, composition of meat,

marbling, post-mortem changes in meat- rigor mortis, tenderization of meat, aging of

meat.

□ Fish - Classification of fish (fresh water and marine), aquaculture, composition of fish,


characteristics of fresh fish, spoilage of fish- microbiological, physiological, biochemical.

□ Poultry - Structure of hen's egg, composition and nutritive value, egg proteins,

characteristics of fresh egg, deterioration of egg quality, difference between broiler and

layers.




Principal
Sir P. T. Science College
Modasa-383215, Dist. Aravalli.

REFERENCES

1. Bawa, A.S, D.P Chauhan et al. Food Science, New India Publishing agency, 2013
2. Roday, S. Food Science, Oxford publication, 2011.
3. B. Srilakshmi, Food science, New Age Publishers, 2002
4. Meyer, Food Chemistry, New Age, 2004
5. De Sukumar., Outlines of Dairy Technology, Oxford University Press, 2007

SIR P.T.SCIENCE COLLEGE, MODASA

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Accredited with 'B++' Grade (2 H3 CGPA) by NAAC in the 2nd Cycle

Status awarded by UGC, AICTE

'A' Grade (CGPA 3.00) in AAS by NTA (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"FOOD TECHNOLOGY"-2022

Certificate

This is to certify that _____ Class
B.Sc., Semester-___, Roll No. _____ has successfully
completed 30 Hours Add on Course "**FOOD
TECHNOLOGY"-2022** which was organized by
Department of Microbiology from 01/01/21 TO
29/01/21 at college campus.

Course Coordinator

Dr. K.N. PARIKH

HOD, Dept. of Microbiology

Dr. K.P. PATIL

Principal

Date:

Place: MODASA

***ADD ON COURSE ON FOOD TECHNOLOGY *- 2022**

Organized by Department of Microbiology

SIR P.T. SCIENCE COLLEGE, MODASA

DATE 01-01-21 to 29-01-21

Batch - (2021-22)

Registration Details

No.	Roll No.	Students Name	GENDER	Signature
1	5501	AFSIN MOHAMMED KARK BULA	F	
2	5502	AKANNA BAKULBHAI LATA	F	
3	5503	ANILKUNAR MADHUSINH BADA	M	
4	5504	ARPITABHEN SHANKARDHAM PEJARPATI	F	
5	5505	ASHMITABEN NAGESHBHAI BHUNE	F	
6	5506	BHUVIRAJNAR PRAYODHAI MAHWANA	M	
7	5507	CHANDRABEN KISHORBHAI DALA	F	
8	5508	DHAVAALKUNAR DHIRADHAI FERA	M	
9	5509	DHRUWI NARAYENDHAI PATEL	F	
10	5510	UJSHA DINESHBHAI PRANAMI	F	



Sir P. T. Science College
Modasa-371119, Dist. Anand

**ADD ON COURSE
ON
HERBARIUM TECHNIQUES &
METHODOLOGY
(EFFECTIVE FROM THE ACADEMIC SESSION
2022-23)**



**DEPARTMENT OF BOTANY
SIR P. T. SCIENCE COLLEGE, MODASA**



Signature
Principal
Sir P. T. Science College
Modasa

Add on Course on Herbarium Techniques & Methodology

INTRODUCTION

Certificate Course on herbarium technique is a specially designed course for graduate students. The herbarium is defined as a storehouse of collected plant specimens. These plant specimens are dried, pressed, and are then preserved in sheets. These sheets are then stored and arranged in a sequence that is universally accepted by the system of classification. The herbarium techniques are part of taxonomical studies in botany. A herbarium is a collection of preserved plant specimens that have been stored appropriately, databased and arranged systematically to ensure quick access to students, researchers and the general public for scientific research and education.

The herbarium is used as a repository for the study of plants specimen. Herbarium provides instant referrals in taxonomical studies. They give histological and geographical information about different plant species.

REQUIREMENTS:

- Student participants: Internal (students of B.Sc. Botany)
- Teachers: Internal: Faculty members of Department of Botany; External faculty members, research scholars and scientists may be invited to conduct some classes depending on their willingness and availability.
- Course fee: Nil.
- Intake Capacity: 20
- Time period of course: 30 days
- Class/Lecture duration: 1 hr.

SCOPE

This subject is designed to impart fundamental knowledge on the herbarium and its methodology to preserve plant specimen for research and related field work. The subject emphasizes on the basic introduction and history of herbarium, different role and application of herbarium in research, types of herbaria, location and importance of herbaria.

methodology and preparation of herbarium. The syllabus also emphasizes on survey, collection, identification and preservation of few important biological species.

OBJECTIVES

1. After completion, the students will have the following skills:
2. Understand the herbarium of history, role and applications.
3. The Ability to collect variety of Plant Specimens properly from different habitat.
4. Understand the different types of herbariums in use for academic and research.
5. Know the methodology and protocol to prepare the herbarium.
6. Study the survey, collection, identification and preservation of few important biological species.
7. The ability to preserve them properly including preparation of Herbarium Specimens and Jar Specimens along with the knowledge of preparing chemical solutions for this process.
8. The knowledge of Safety with special emphasis on Hazardous chemicals.
9. The basic knowledge of incorporation and maintaining of specimens in a herbarium and museum with special reference to Digital Databases of Herbarium and Museum.

OUTCOME

After completion of the course the student were acquired with A herbarium is a collection of preserved plant specimens that have been stored appropriately, data based and arranged systematically to ensure quick access to students, researchers and the general public for scientific research and education.

SYLLABUS

Herbarium (T): Theory of Herbarium Preparation (15 Hours)

1. Introduction To Herbarium (2 Hours)

Introduction of herbarium, herbarium sheet, history, objective and role of herbarium in research and academics.

2. Types of herbarium (1 Hours)

Details of different types of herbaria, acronymic, functions of herbaria and few important herbaria of world and India.

3. Collection of specimens (2 Hours)

Field equipment, field work, field notebook, and details of collection process of specimen for herbarium.

4. Processing of specimen (4 Hours)

Details of poisoning, pressing, drying, mounting, stitching, labelling, identification and determination of plant, incorporation

5. Maintenance (2 Hours)

Introduction to different methods of maintenance of such as fumigation, heating, chemical treatment, etc.

6. Collection, preservation and identification of few important biological species (4 Hours)

Brief discussion on Collection, preservation and identification of few important species such Algae, wild mushrooms, and bryophytes.

Herbarium (P): Practical's of Herbarium Preparation (15 Hours)

1. Demonstration of Herbarium Technique (5 Hours)

2. Drying and Pressing (5 Hours)

3. Poisoning (5 Hours)

Process of Continuous Assessment and Grading:

It will be based on the following:

- ▶ Attendance of the students
- ▶ Continuous assessment in both theoretical class and practical
- ▶ Multiple Choice Questions
- ▶ Viva-voce

EXAMINATION PATTERN:

Multiple Choice Question – 10 Marks

Viva-voce – 10 marks

Field work – 20 marks

Total marks, 40

GRADATION PATTERN:

Percentage of marks obtained	Grade
90 -100	Excellent - A+
75-89	Very Good - A
50-69	Good - B
40 -49	Fair - C
Below 40	Not Eligible for Certificate - D



Sri Krishna
Principal
Sri Krishna University
Maddur, Bangalore



SRI P. T. SCIENCE COLLEGE, ANDHRA PRADESH

DEPARTMENT OF BOTANY

ADD ON COURSE: RESEARCH TECHNIQUES IN APPLIED BOTANY
REGISTRATION STUDENTS



Sl. No	Name	Number of Lectures																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
1	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
2	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	Prasanna K. Chandra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

SRI P. T. SCIENCE COLLEGE
WINDMILL

SRI P. T. SCIENCE COLLEGE
WINDMILL



SIR P. T. SCIENCE COLLEGE, MOODASA

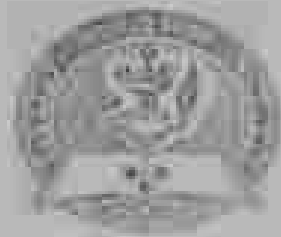
DEPARTMENT OF BOTANY

ADD ON COURSE- HERBARIUM TECHNIQUES & METHODOLOGY

REGISTERED STUDENTS

Sr. No.	Roll No.	Name	Gender	Sign
1	5308	Nituben Bharatbhai Parmar	Female	[Signature]
2	5309	Jaybhikumar Narandbhai Varsat	Male	[Signature]
3	5310	Mansi Supthkumar Baryya	Female	[Signature]
4	5311	Nikhilbhai Dineshbhai Dattar	Male	[Signature]
5	5312	Narandrabhai Bhagwanbhai Khunt	Male	[Signature]
6	5313	Nituben Shambhureshkh Bhatad	Female	[Signature]
7	5314	Sahilkomar Naranjanbhai Pangi	Male	[Signature]

Sir P. T. Science College
Moodasa



SIR P. T. SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee constituted by the following members was held on 12-04-2022 (Friday) at 12:00 noon to prepare the syllabus of add on course for Botany Department to be started in the college. The following members were present in the meeting:

The attached syllabus of 30 hours "ADD-ON COURSE ON: "Herbicide Techniques and Methodology" is approved by this committee after minute's discussion.

Sr. No.	Name of Member	Designation	Signature
1	Dr. K. P. PATEL	Principal	
2	Dr. K. S. VISHVA	Head of the Botany Department	
3	Dr. H. S. JAINOLI	Sr. Faculty Member	
4	Dr. H. S. KHARADI	Sr. Faculty Member	
5	Dr. U. C. GUPTA	Faculty Member	
6	DR. N. Z. CHAUDHARI	Faculty Member	

Dr. P. T. Science College
Modasa-383115, Dist. Anand

Add-on Course of "LED BULB, USAGE AND APPLICATIONS"

Registration Fee: Free

Last date: 10 Aug 2022



Organized by DEPARTMENT OF PHYSICS

Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of algebra and mathematics.
- Interested in learning electricity and electronics.
- Own a scientific calculator.

Description

"LED BULB, USAGE AND APPLICATIONS" makes electronics easy!

This course includes Practical's and text explanations of everything in electricity and electronics, and it includes more than 8 Experiments with easy-to-understand explanations. "LED BULB, USAGE AND APPLICATIONS" Course is organized into four sections:

- Basic concepts
- Basic laws
- Methods of analysis
- Experiments

Who this course is for:

- First year students of B.Sc.
- University, college or school students taking an electricity or electronics course.
- Anyone interested in gaining mastery of the core concepts of electrical and electronic Sciences.

For Certification require fulfillments evaluation and presence.

Course Duration: 30 contacts

Course Commencement: From 10th August 2022

Course Coordinator:- Prof Girish Velaria

HOD:- Dr R.H Parmar



Sir P. T. Science College
Modasa - 383001, Gujarat

Aims of the programme:

- To develop the skills required to gather information from resources and use them.
- To provide an intellectually stimulating environment to develop skills and enthusiasm of students to the best of their potential.
- To give need based education in physics of the highest quality at the undergraduate level.
- To offer courses to the choice of the students.
- To enable students to perform experiments and interpret the results of observation, including an assessment of experimental uncertainties.

Objectives:

By the end of the add on Course on "LED BULB, USAGE AND APPLICATIONS", the students should have attained a common level in basic of Electric Circuit physics to complement the core for their future courses and developed their experimental and data analysis skills through experiments in laboratories.

SYLLABUS

MODULE I

10 hours

Diodes- basic concepts, Biasing- forward bias and reverse bias, Introduction to LEDs, Semiconductor LEDs- How do they Work, LED's basic theory, LED Voltage (Voltage and current), Advantages and disadvantages of LED

MODULE II

10 hours

Multicolour LEDs, White LED, Physics of White LED, White LED as heat, Blue LED- History of Revolutions, LEDs Lighting and Potential for energy savings, Applications of LEDs- Power indicator, seven segment display, why LED lights so good, Organic LEDs

MODULE III - Practical Session

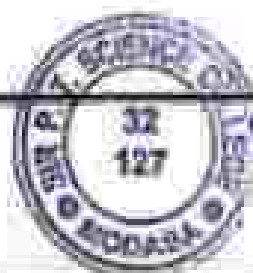
10 hours

How to assemble LED bulbs, Discussion of the circuits, Fabrication of the LED bulbs

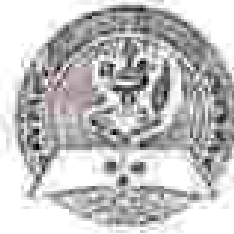
Text book for study

1. Principles of Electronics- Y K Mittal- B. Chand Publication
2. Principles and Applications of Organic Light Emitting Diodes (OLEDs)- Tripti Kalyani, Hemish Swast and S.J. Datta-Wiley Publication
3. Understanding LED Illumination - M. Nisa Khan
4. Integrated Electronics- Jacob Milman, Christos Halkias, Chaim D. Pulkis, second edition

P.T.S.



L.Ravi
Principal
P. T. Science Centre
Bangalore-560075, Dist. Aravalli



SIR P. T. SCIENCE COLLEGE MODASA – 383315

Registration

Add on course on LED BULB Uses and Application

16-08-2022 to 15-09-2022

Sl NO.	NAME	RollNo.	Sign
1	Aksheshkumar Dilliplumar Prajapati	1001	A.P.P.
2	Amita Dineshbhai Chandhari	1002	A.D.Chandhari
3	Ashokkumar Navinbhai Dumar	1003	A.Dumar
4	Ankithkumar Vinodbhai Bhol	1004	A.Bhol
5	Ayushiben Sureshbhai Od	1005	A.Od
6	Bhargavkumar Hiteshbhai Patel	1006	B.H.Patel
7	Dheer Makashbhai Patel	1007	D.M.Patel
8	Dheeruben Laksh Babbar	1008	D.Babbar
9	Hiteshkumar Maheshbhai Patel	1009	H.Patel
10	Karthikumar Sundipbhai Upadhyay	1010	K.U.
11	Krunal Chintanbhai Patil	1011	K.C.Patil
12	Krupaben Jiteshchandra Pandya	1012	K.Pandya
13	Maheshbhanu Hanudbhai Chavhan	1013	M.H.Chavhan
14	Meera Aswinbhai Patel	1014	M.A.Patel

Prof Girish Vekaria

Sir P. T. Science College
Modasa

Add on course on LED BULB Use and Application 15-06-2022 to 15-09-2022 Prof Girish Velani

Sl. No.	Name of Student	Date																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Maheshwar Dhanraj Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Amita Bhambhani Dhanraj	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Aashishwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ashishwar Vinodhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ayushwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Bharatwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Chetan Maheshwar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Dhyanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Dhyanwar Maheshwar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Dhanwar Anandhar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Saudha

Girish




 Municipal
Sir P. T. Science College
 Yodha-382114, Dist. Aravalli

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that _____ Class
B.Sc., Semester-1, Roll No. _____ has successfully
completed 30 Hours Add on certificate Course

"LED BULB USES AND APPLICATION" organized by
Department of Physics from 16-08-2022 TO 15-10-2022 at
college campus.

Course Co-Ordinator

Head of Department Physics

Principal

Date: 15/10/2022

Place: MODASA





SIR P T SCIENCE COLLEGE, MODASA

SYLLABUS

FOR

ADD-ON COURSE

IN

ETHNOBOTANY AND MEDICINAL PLANTS

(Effective from the Academic Session 2022-23)



DEPARTMENT OF BOTANY

SIR P. T. SCIENCE COLLEGE, MODASA



OBJECTIVES OF THE COURSE:

Introduction to Ethnobotany and medicinal plants explores the fundamental relationships that exist between plants and indigenous/traditional cultures from around the world. The course presents the history of indigenous/traditional plant use in relation to cultural development as well as how modern scientific approaches to ethnobotanical investigations are revealing new and exciting applications for plant materials. It also provides information on various categories of plant use, the importance of traditional knowledge to Western culture, and the role of plant conservation and cultural sustainability. Thus, this course will enable the students to -

- Know about the traditional knowledge of plants and their uses especially their roles in curing various human diseases.
- Acquire knowledge on various types of drug preparation.
- Study certain important plants involved in home remedies.
- Understand the importance of preservation and conservation of indigenous medicinal plants.

SIR P.T.SCIENCE COLLEGE, MODASA



Minutes

A meeting of the committee consisting by the following members was held on 05-07-2022 prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting:

The attached syllabus of 10 hours "ADD ON COURSE ON: "ETHANOBOTANY AND MEDICINAL PLANT-2022-23" is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. M S JANGID	Associate Professor	
7	Dr. H S KHARADI	Associate Professor	
8	Dr. U C GUPTA	Assistant Professor	

ADD-ON COURSE IN ETHNOBOTANY AND MEDICINAL PLANTS

(Effective from the Academic Session 2022-23)

DEPARTMENT OF BOTANY

SIR P T SCIENCE COLLEGE, MODASA

Date: 01/12/22 TO 31/01/23



Syllabus contents (30 hours)

Unit	Course contents (Theory)	Class/Lect hrs
1	Introduction and objective of Ethnobotany; Ethnobotany is an interdisciplinary science; The relevance of ethnobotany in the present context	02 hours
2	Some common ethnic groups or Tribes of India and their life- styles. Plants used by the Tribes a) Food plants b) Medicines and miscellaneous uses	02 hours
3	Role of ethno botanical practices in modern medicine with example of some common medicinal plants	01 hours
4	Bio piracy, Intellectual property rights and traditional knowledge	01 hours
5	History, Scope and importance of medicinal plants with some common examples. Application of natural products to certain common diseases	01 hours
6	Conservation of medicinal plants	01 hours
Total no. of lectures		08 hours

* Duration of 01 class/lecture = 01 hour.

Practical/Field study	
1	Study of medicinal plants in the locality/botanical garden. (15*7= 22 hours)



**APPROVED SYLLABUS OF ADD-ON COURSE IN
ETHNOBOTANY AND MEDICINAL PLANTS-2022-23**

PREPARED BY
DEPARTMENT OF BOTANY

COURSE CO-ORDINATOR: DR. M. S. JANGID
YEAR: 2022-23

SIR P. T. SCIENCE COLLEGE, MODASA
Date: 21/02/22 TO 31/01/23



Syllabus contents (30 hours)

Unit	Course contents (Hours)	Class/Lect area
1	Introduction and objective of Ethnobotany; Ethnobotany as interdisciplinary science; The relevance of ethnobotany in the present context	02 hours
2	Some common ethnic groups or Tribals of India and their life styles. Plants used by the Tribals:- a) Food plants b) Medicines and miscellaneous uses	02 hours
3	Role of some botanical products in modern medicine with example of some common medicinal plants	01 hours
4	Biodiversity, Intellectual property rights and traditional knowledge	01 hours
5	History, Scope and importance of medicinal plants with some common examples. Application of natural products to certain common illnesses	01 hours
6	Conservation of medicinal plants	01 hours
Total no. of lectures		09 hours

* Duration of 01 class/lecture = 01 hour.

Practical/Field study	
1	Study of medicinal plants in the locality (botanical garden). (13*7= 22 hours)





REFERENCES:

JAIN, S.K. (1987). A MANUAL OF ETHNOBOTANY. SCIENTIFIC PUBLISHERS, JODHPUR.

JAIN, S.K. (1989). CONTRIBUTION TO INDIAN ETHNOBOTANY. SCIENTIFIC PUBLISHERS, JODHPUR.

JAIN, S.K. (1989). METHODS AND APPROACHES IN ETHNOBOTANY. SOCIETY OF ETHNOBOTANISTS, LUCKNOW.

JAIN, S.K. (1992). DICTIONARY OF INDIAN FOLK-MEDICINE AND ETHNOBOTANY. DEEP PUBLICATION, NEW DELHI.

JAIN, S.K. (1996). MEDICINAL PLANTS NBT, NEW DELHI.

JAIN, S.K. (1991). DICTIONARY OF INDIAN FOLK-MEDICINE AND ETHNOBOTANY. DEEP PUBLICATION, NEW DELHI.



Sir P. T. Science College, Modasi

Ad on Course Module C (Ethnobotany & Medicinal Plants)

2022-23

May 20 2023

Day	Date	Theory	Practical	Project	Total Hours
Thursday	1/12/22 8/12/22 16/12/22 22/12/22	10.00am to 11.00am Thursday			4 hours Theory
Friday	2/12/22 9/12/22 17/12/22 23/12/22	10.00am to 11.00am Thursday			4 hours Theory
Saturday	3/12/22 10/12/22 18/12/22 24/12/22			At Your Place Thursday	7 hours Field work 2023
Sunday	4/12/22 11/12/22 19/12/22 25/12/22		9.00 am to 1.00pm Thursday		15 Hours Lab Work 2023
Exam Schedule					
3/1/2023	3 hours	MCQ Test	Project Report Submission	Presentation	Viva-voce

(Signature)

Principal

Sir P. T. Science College
Modasa-380016, Dist. Anand





पी. एम. ए. सर्वोच्च शिक्षण देणायो मंडळ, मोडसा संघाला

१५/११/२३

सर पुरषोत्तमदास ढाडोरदास सायन्स कोलेज, मोडसा.

(NAAC ACCREDITED B⁺)

वैद्यनाथ रोड, मोडसा-४२३२१५, जि. अहमदाबाद.

आयोजकता विषयीचे नोंद



वेब नंबर : _____ Open / SC / ST / UR / EBC / Handicap

संशोधन : _____

विषय : ETM & Mathematical Physics

प्रवेश करणाऱ्यांचा क्रमांक / वर्षाची नोंद : १०२३-२३

Handwritten signature

ADD-ON COURSE मध्ये प्रवेश घेणाऱ्या मातेतु संपूर्णपणे

समाधानकर्त्री,

आपली प्रवेशाची यादी COURSE Add-on मध्ये उल्लेख करून घ्यावी व प्रवेश फॉर्म व. कोलेजच्या वेबसाईट वरून घ्यावे. कोलेजच्या वेबसाईट वर प्रवेश फॉर्म भरून घ्यावे. कोलेजच्या वेबसाईट वरून घ्यावे. कोलेजच्या वेबसाईट वरून घ्यावे.

वर्षा : २०२३

दि.

मार्च : २०/११/२३

समाधानकर्त्रीची नोंद : S.K. Rajivad

१. पूर्ण नाव : (संशोधन) TARIVAD SNEHLATA BEN KHATUDHAS

पूर्ण नाव : (सुपरवायझर) S. K. RAJIVAD

(संशोधनकर्त्रीची नोंद)

२. जन्म दिनांक : २०/११/२३ जाग : मोडसा जिल्हा : अहमदाबाद

३. जन्म तारीख (संशोधनकर्त्रीची नोंद) : १/१/२००० व. नं. : २०२३

४. शाला : विद्युत्तंत्रज्ञान शाळा

५. राहणीपत्ता : वृंदावनगर व. पत्तिकावळ : अहमदाबाद

६. मातृसंस्थेचे पूर्ण नाव व जिल्हा : मोडसा जिल्हा : अहमदाबाद

७. मातृसंस्थेचे पत्ता : ५००००/-

८. मातृसंस्थेचे संपर्क : २०२३

९. विद्यार्थी संशोधनकर्त्रीचे पूर्ण नाव : _____

१०. विद्यार्थी संशोधनकर्त्रीचे संपर्क : _____

११. विद्यार्थी संशोधनकर्त्रीचे संपर्क : _____

१२. विद्यार्थी संशोधनकर्त्रीचे संपर्क : _____

आहंघरी पत्र

सुनिश्चित करून घ्यावे की कोलेजच्या वेबसाईट वरून घ्यावे. कोलेजच्या वेबसाईट वरून घ्यावे. कोलेजच्या वेबसाईट वरून घ्यावे.

Handwritten signature

समाधानकर्त्री

Handwritten signature

समाधानकर्त्री



CERTIFICATE

This is to certify that **DAURAGHNSHAK & CHATURVEDI** worked under my guidance during 2022-23 for her submission entitled "ETHNOMEDICINAL STUDY OF SOME SELECTED PLANTS OF TALUKA MODASA, DISTRICT ARVALLI, GUJARAT,INDIA". I further certify that the work has not been submitted either partly or fully in any other University or Institute for the award of any Diploma or Degree.

Guided by -



Dr. M.S. Jangid
PG Centre in Botany,
St. P.T. Science College,
Modasa- 383 315

Head -



Dr. S.D. Vedia
PG Centre in Botany,
St. P.T. Science College,
Modasa- 383 315

CERTIFICATE

This is to certify that **PARNIMAYENDU** Reg. No. 07 worked under my guidance during 2022-23 for her submission entitled "ETHNOMEDICINAL STUDY OF SOME SELECTED PLANTS OF TALUKA MODASA, DISTRICT ARVALLI, GUJARAT, INDIA". I further certify that the work has not been submitted either partly or fully in any other University or Institute for the award of any Diploma or Degree.

Guided by:



Dr. M.S. Jangid

PG Centre in Botany,

Sir P.T. Science College,

Modasa-380 315.

Head:-



Dr. S.D. Vedia

PG Centre in Botany,

Sir P.T. Science College,

Modasa-380 315.

SIR P. T. SCIENCE COLLEGE, MODASA

ADD-ON COURSE IN ETHNOBOTANY AND MEDICINAL PLANTS-2022-23

FINAL TEST

TIME: 20 MIN

DATE: 03/04/2023

MARKS: 10

NAME OF STUDENT'S: Joshi Keshali

REGISTRATION NO: 2

Q.1. Who is the father of Indian ethnobotany? Dr. Sushruta Kumar Jha

Q.2. Give the scientific name of Tolu ~~ECM~~ ~~resin~~ ~~tree~~

Q.3. Give the full form of IPH Intell

Q.4. Traditional use of Acmegathra horse field remedy

Q.5. Vinaka (Arka) is used to asthma

Q.6. The term Ethnobotany was first coined by Robert Schimper

Q.7. The cereals belong to the family Poaceae

Q.8. Scientific name of Ginger is Zingiber officinale

Q.9. What is sward plants? Wool, Kuchu grass, tulsi

Q.10. What is ethnobotany? the study how people in particular culture and region make use of medicinal plants

8/10



ADD-ON COURSE IN ETHNOBOTANY AND MEDICINAL PLANTS
(Effective from the Academic Session 2022-23)



DEPARTMENT OF BOTANY

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 01/1/2022 TO 31/01/23

RESULT SHEET

SR NO	NAME OF STUDENTS	MCQ-10 MARKS	REPORT-15 MARKS	VIVA VOCE-10 MARKS	PRESENT-5 MARKS	TOTAL-40 MARKS	GRADE
1	JODHIKA	8	14	9	5	36	A
2	CHAUDHARY JJ	9	14	8	5	36	A
3	DANGAR SH	9	14	9	5	37	A
4	BARAIYA MB	9	14	9	5	37	A
5	ACHARYA JJ	9	13	9	5	36	A
6	PARMAR JJ	8	13	9	5	35	B
7	PANDEY JJ	9	13	8	5	35	B
8	PRANATI B	9	13	9	5	36	A
9	TANYAR SK	9	14	9	5	37	A

(Signature)

(Dr. M. S. Jangid)
Course Coordinator

(Signature)

Head
Biology Department
Science College
Modasa.

(Signature)

W. P. T. Science College
Dist. Aravalli



Examination pattern:

1. Objective type questions-10 marks
 2. Field study report - 15 marks
 3. Viva voce - 10 marks
 4. Project-05
- Total Marks: 40**

Gradation pattern:

Percentage of marks obtained	Grade
90-100	Excellent - A
70-89	Good - B
50-69	Fair - C
40-49	Not Eligible for Certificate - D



(FIELD STUDY REPORT)



SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandra Baiya North Gujarat University, Vadod
Accredited with 'B++' Grade (2nd Cycle) by NAAC in the 2nd Cycle

State awarded by (M.C.A.)

'A' Grade (CGPA 3.01) by AACSB by UGC (Govt. of Gujarat)

ADD ON COURSE

"ETHNOBOTANY AND MEDICINAL PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Parman, Jyhind J.

Roll No. 8 has successfully completed 30 hours Add on Course "Ethnobotany and medicinal plants 2022-23" which was organized by Department of Botany from 01/12/22 to 31/01/23 at college campus.


Dr. M. S. Jangid
Course Co-ordinator


Dr. S. D. Vedya
HOD, Dept. of Botany


Dr. R. P. PATIL
Principal

Date: 20/2/2023
Place Modasa



(CERTIFICATE DISTRIBUTION)



SIR P. T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

**Affiliated to Hemchandracharya North Gujarat University, Patan,
Gujarat.**

ADD-ON COURSE

FOR

B.Sc. DEGREE STUDENTS

IN

KITCHEN GARDENING & COMPOSTING

(Effective from the Academic Session 2023-24)

DEPARTMENT OF BOTANY

Dr. H. S. Kharadi
Course Coordinator

Dr. S. D. VEDIYA
HOD, Dept. of Botany

Dr. K.P.PATEL
Principal



SIR P. T. SCIENCE COLLEGE, MODASA

ADD-ON COURSE

FOR

B.Sc. DEGREE STUDENTS

SYLLABUS FOR ADD-ON COURSE

IN


KITCHEN GARDENING & COMPOSTING
(Effective from the Academic Session 2023-24)

DEPARTMENT OF BOTANY



SIR P T SCIENCE COLLEGE, MODASA
DEPARTMENT OF BOTANY
DETAILS OF ADD ON COURSES

SR NO	ADD ON COURSES	PERIOD OF TIME	CO-ORDINATUR	STUDENT NO OF REGISTER
YEAR:2021-2022				
1	WATER QUALITY	02/09/21 TO 30/09/21	DR. S D. VEDIYA	05
YEAR:2022-2023				
2	ETHANOBOTANY AND MEDICINAL PLANT	01/12/22 TO 31/01/23	DR. M S. JANGID	09
YEAR:2023-2024				
3	KITCHEN GARDENING AND COMPOSTING	07/12/23 TO 04/01/24	DR. H S. KHARADI	06
4	SCIENTIFIC RESEARCH PAPER WRITING	01/12/22 TO 31/01/23	DR. U C. GUPTA	05
5	MEDICINAL AND AROMATIC PLANTS	07/12/23 TO 04/01/24	PROF. A Z. CHAUDHARI	05


Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



Sir P. T. Science College, Modasa
Ad on Course Module

2023-24

Day	Date	Theory	Practical	Project	Total Hours
Thursday	7/12/23 14/12/23 21/12/23 28/12/23	10.00am to 11.00am 1hour/day	-----	-----	4 hours Theory
Friday	8/12/23 15/12/23 22/12/23 29/12/23	10.00am to 11.00am 1hour/day	-----	-----	4 hours Theory
Saturday	9/12/23 16/12/23 23/12/23 30/12/23	-----	-----	At Your Place 2hours/day	7hours Practical + 1Hours Compilation
Sunday	10/12/23 17/12/23 24/12/23 31/12/23	-----	9.00 am to 1.00pm 4hours/day	-----	15 Hours Field work + 1Hours Project Reporting
Exam Schedule					
4/1/2024	2 hours	MCQ Test	Project Report Submission Presentation	Viva-voce	

[Signature]
Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



SIR P.T.SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting by the following members was held on 15-06-2023 prepare the syllabus of add on course by Botany Department to be started in the college. The following members were present in this meeting.

The attached syllabus of 30 hours "ADD ON COURSE ON: "KITCHEN GARDENING AND COMPOSTING -2023-24 is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. M S JANGID	Associate Professor	
7	Dr. H S KHARADI	Associate Professor	
8	Dr. U C GUPTA	Assistant Professor	
9	Prof. A . Z CHAUDHARI	Assistant Professor	

Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



SIR P T SCIENCE COLLEGE, MODASA

DEPARTMENT OF BOTANY

KITCHEN GARDENING & COMPOSTING

OBJECTIVES OF THE COURSE:

For curious hearts, kitchen gardening isn't the same as regular gardening. This is because a kitchen garden is usually smaller and aesthetically more pleasing and can be managed exceptionally well under proper guidance. Besides, the production is meant for our fresh consumption. Conducive to growing vegetables, herbs, and fruits, kitchen gardens are more practical and more accessible to all age groups who are attached to nature. Kitchen farming promotes better health in urban areas. It is pleasure to harvest vegetables on windows, balconies, and vertical walls; any such space can be used for a vertical garden.

Composting organic waste from your kitchen and garden is an effective way to reduce waste, improve soil quality, and create a free, natural fertilizer. Composting is a simple process that anyone can do at home, and it can significantly reduce your environmental impact while promoting sustainable living. Thus, this course will enable the students to –

- To increase production and productivity of fruit/ vegetable/ spices
- To establish nurseries both at public & private sector for quality planting materials
- Composting organic waste from your kitchen and garden is an effective way to reduce waste, improve soil quality, and create a free, natural fertilizer
- To transfer technologies from Lab to Land Encourages healthy and clean eating.
- To ensure good Soil health.
- To improve internal efficiency/ responsiveness/ service delivery of the department
- To emphasize the importance of planting a garden and Concept of kitchen garden
- How to nurture a kitchen garden and Starting and maintaining a composting bin


Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvali.

ADD-ON COURSE IN KITCHEN GARDENING & COMPOSTING

(Effective from the Academic Session 2023-24)

DEPARTMENT OF BOTANY
SIR P T SCIENCE COLLEGE, MODASA
Date: 07/12/22 TO 04/01/24

Syllabus contents

Sl. No.	Topic	Hours
1	Gardening and composting (6 Hours) Introduction and objective of kitchen gardening and composting Cut Flowers and flower trade. Cultivation, harvesting, storage, packaging and marketing of flowers –rose, orchid, jasmine.	06
2	Flower arrangement (6 Hours) Flower arrangement, flower making and dry flower decorations	06
3	Vegetative Propagation (6 Hours) Vegetative propagation- Cutting, Layering, Budding and Grafting application and advantages, Theoretical aspects of Grafting and budding, seed propagation- seed bed preparation,	06
4	Gardening (6hours) (Ornamental garden, indoor garden, Outdoor Garden, landscape garden, Japanese garden, roof top garden, kitchen garden, rock garden, water garden and growing medicinal and aromatic plants.	06
5	Garden Components (6 Hours) Annuals, biennials, herbs, shrubs, trees, climbers, drives, arches, pergolas, flower beds, hedges, edges, Lawn, Bonsai, Water Garden / Sunken Garden, Garden friends Honey bees, ladybirds, frogs, earthworms,. Garden foes- pests, pathogenic fungi, bacteria, virus.	06
Total no. of lectures		30


Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

APPROVED SYLLABUS OF ADD-ON COURSE IN

KITCHEN GARDENING & COMPOSTING 2023-24

PREPARED BY
DEPARTMENT OF BOTANY

COURSE CO-ORDINATOR: DR H.S KHARADI
YEAR: 2023-24

SIR P T SCIENCE COLLEGE, MODASA
Date: 07/12/22 TO 4/01/24

Syllabus contents

Sl. No.	Topic	Hours
1	Gardening and composting (6 Hours) Introduction and objective of kitchen gardening and composting Cut Flowers and flower trade. Cultivation, harvesting, storage, packaging and marketing of flowers –rose, orchid, jasmine.	06
2	Flower arrangement (6 Hours) Flower arrangement, flower making and dry flower decorations	06
3	Vegetative Propagation (6 Hours) Vegetative propagation- Cutting, Layering, Budding and Grafting application and advantages, Theoretical aspects of Grafting and budding, seed propagation- seed bed preparation.	06
4	Gardening (6hours) (Ornamental garden, indoor garden, Outdoor Garden, landscape garden, Japanese garden, roof top garden, kitchen garden, rock garden, water garden and growing medicinal and aromatic plants.	06
5	Garden Components (6 Hours) Annuals, biennials, herbs, shrubs, trees, climbers, drives, arches, pergolas, flower beds, hedges, edges, Lawn, Bonsai, Water Garden / Sunken Garden, Garden friends Honey bees, ladybirds, frogs, earthworms,. Garden foes- pests, pathogenic fungi, bacteria, virus.	06
Total no. of lectures		30


Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

Examination pattern:

1. Multiple Choice Questions – 10 marks
2. Viva voce – 10 marks
3. Study report – 15 marks
4. Present : - 05

Total Marks: 40

Gradation pattern:

90-100	Excellent - A
70-89	Good - B
50-69	Fair - C
40-49	Not Eligible for Certificate - D

CERTIFICATE WILL BE PROVIDED BY THE COLLEGE AFTER COMPLETION OF COURSE.


Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvali

References :-

[5] Chiemela F. Anyanwu, Serafin L. Ngohayon, Ricardo L. Ildefonso, Joseph L. Ngohayon "Application of Indigenous Microorganisms (IMO) for Bio-Conversion of Agricultural Waste" International Journal of Science and Research (USR) ISSN (Online): 2319-7064

[1] Malabasari R.T. and Hiremath U.S. (2016) J Farm Sci., 29(2), 251- 256.

[2] Sethy S., Sarkar S. and Kumar M. (2010) Ind. Res. J. Ext. Edu., 10 (2),89-92.

[6] Shaheb MR, Nazrul MISarker A. 2014. Improvement of livelihood, food and nutrition security through homestead vegetables production and fruit tree management in bangladesh. J Bangladesh Agric Univ. 12:377–387.

[3] Sharma K., Singh G., Dhaliwal N.S. and Yadav V.P.S. (2011) J. Comm Mobilization and Sus. Dev., 6(1), 096-099.

[4] Singh P., Pandey A., Tiwari C. and Sharma D. (2016) J. Rural Dev., 35(4), 80-83

[1] Siti Aminah Ab Muttalib, Sharifah Norkhadijah Syed Ismail, Sarva Mangala Praveena "Application of Effective Microorganism (EM) in Food Waste Composting: A review" Asia Pacific Environmental and Occupational Health Journal, 2 (2): 37 - 47, 2016 [

[8] "From kitchen gardens to perfect health: women bring a real 'Iron revolution' in 26 villages" by SnehlataShrivastav (2013), Nagpur.

[7] T.W.Bandara "The modern trends and distribution pattern of kitchen garden in Sri Lanka. A case study in Biyagama area, Page no: 27-58, ejournal- Vol 02.

[5] Vani Bhushanam G. and Usha Rani M. (2013) Am. Int. J. Res. in Formal, Applied & Natural Sci., 3(1), 78-81.


Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvalk



SIR P T SCIENCE COLLEGE, MODASA

COURSE COORDINATOR: Dr. H. S. Kharadi

YEAR: 2023-24

Kitchen Gardening & Composting

Roll No	Students Name	Sign
1	MANSURI ADNAN R	A.R. Mansuri
2	DAMOR BHARAT LAXAMANBHAI	D. Damor
3	DESAI DAKSH K	D.K. Desai
4	RABARI DHAVAL K	D.K. Rabari
5	JODDHA DHRVI D	D. Jodha
6	DARJI HENI A	Darji Hani A.


Co-coordinator


Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

કી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicape

તારીખ : _____

વિષય : Kitchen Gas burning & comparison
પ્રવેશ આપવામાં આવે છે / આવતો નથી. 2023-24

A.R. Mansuri
આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું બંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : 7-12-23

વિદ્યાર્થીની સહી : A.R. Mansuri

૧. પુરું નામ : (અંગ્રેજીમાં) Mansuri Adyanan Roshanbhai

પુરું નામ : (ગુજરાતીમાં) મનસુરી અદ્યાનાન રોશનભાઈ

(અટક પહેલી લખવી)

૨. જન્મ સ્થળ : શિવગીર તાલુકો : દાંતીજુરા જિલ્લો : સાબરકાંઠા

૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) 22/02/2004 ઠ. ધર્મ : દસ્તીજી

૪. જ્ઞાતિ : મુસલમાન દાંતી (પછાત વર્ગના હોય તો વિગત દર્શાવવી)

૫. રાષ્ટ્રીયતા Indian ઠ. પરણિત/અપરણિત : અપરણિત

૬. વાલીનું પુરું નામ અને સગપણ : મનસુરી રોશનભાઈ દબાદુભાઈ (પિતા)

૭. વાલીની વાર્ષિક આવક : 50,000/-

૧૦. વાલીનું પુરું સરનામું : 229, 22નીદાબાઈ સોસાયટી, ભૈરવડાંરોડ, મોડાસા

૧૧. વિદ્યાર્થીનું મોડાસાનું પુરું સરનામું : 229, 22નીદાબાઈ સોસાયટી, ભૈરવડાંરોડ, મોડાસા

ફોન નંબર : 7673064329 વિદ્યાર્થીનો મો.નં. 7673064329 વાલીનો મો.નં. 9653100023

૧૨. વિદ્યાર્થીનું વતન પુરું સરનામું : 229, 22નીદાબાઈ સોસાયટી, ભૈરવડાંરોડ, મોડાસા

૧૩. આધાર કાર્ડ નં. 8307 6442 1635

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું ચુસ્તપણે પાલન કરવા બાંહેધરી આપું છું, હું નિયમિત રીતે હાજરી આપીશ.

મનસુરી રોશનભાઈ
વાલીની સહી

A.R. Mansuri
વિદ્યાર્થીની સહી



ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

સર પુરષોતમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B")

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

ફી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicaps

તારીખ : _____

વિષય : Kitchen Accounting & Computer
પ્રવેશ આપવામાં આવે છે / આવતો નથી. 2023-24

HTM
આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add-on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું ખંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : ૦૧/૧૨/૨૦૨૩

વિદ્યાર્થીની સહી : B. DAMOR

૧. પુરું નામ : (અંગ્રેજીમાં) Damod Bhavut Humar Luxmambhai
પુરું નામ : (ગુજરાતીમાં) ડામોર ભવતકુમાર લક્ષ્મભાઈ
(અટક પહેલી લખવી)
૨. જન્મ સ્થળ : આંકલીયા તાલુકો : કડાબા જિલ્લો : મહીસાગર
૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) ૩૦/૧૨/૨૦૦૩ ધર્મ : હિન્દુ
૪. જ્ઞાતિ : ST (પછાત વર્ગના હોય તો વિગત દર્શાવવી)
૫. રાષ્ટ્રીયતા ભારતીય ૬. અસક્ત/અપરક્ત : અપરક્ત
૭. વાલીનું પુરું નામ અને સગપણ : ડામોર લક્ષ્મભાઈ શમાભાઈ (પિતા)
૮. વાલીની વાર્ષિક આવક : ૪૦,૦૦૦ -
૯. વાલીનું પુરું સરનામું : મુ.પા. આંકલીયા ઠા. કડાબા જુ. મહીસાગર
૧૦. વિદ્યાર્થીનું મોડાસાનું પુરું સરનામું : _____
૧૧. ફોન નંબર : _____ વિદ્યાર્થીનો મો.નં. ૯૭૧૧૨૦૪૦૬૬ વાલીનો મો.નં. ૯૯૧૩૦૯૬૦૯૨
૧૨. વિદ્યાર્થીનું વતન પુરું સરનામું : મુ.પા. આંકલીયા ઠા. કડાબા જુ. મહીસાગર
૧૩. આધાર કાર્ડ નં. ૨૪૪૪ ૪૭૧૬ ૫૬૨૩

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું ચુસ્તપણે પાલન કરવા બાંહેધરી આપું છું. હું નિયમિત રીતે હાજરી આપીશ.

અમલ આર. ડામોર
વાલીની સહી

B. DAMOR
વિદ્યાર્થીની સહી



ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B")

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

ફી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicape

તારીખ : _____

વિષય : Kitchen Accessories & Composting
પ્રવેશ આપવામાં આવે છે / આવતો નથી.

[Signature]
આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add-on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું બંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : 09/02/2023

વિદ્યાર્થીની સહી : [Signature]

૧. પુરુષ નામ : (અંગ્રેજીમાં) DESAI DAKSHKUMAR KANUBHAI
પુરુષ નામ : (ગુજરાતીમાં) દેસાઈ દક્ષકુમાર કનુભાઈ
(અટક પહેલી લખવી)
૨. જન્મ સ્થળ : મોડાસા તાલુકો : મોડાસા જિલ્લો : અરવલ્લી
૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) 30/08/2004 ઇ. ધર્મ : હિન્દુ
૫. જ્ઞાતિ : OBC (પછાત વર્ગના હોય તો વિગત દર્શાવવી)
૬. રાષ્ટ્રીયતા ભારતીય ઇ. પસંદ/અપસંદ : અપસંદ/ગાંધી
૮. વાલીનું પુરુષ નામ અને સગપણ : દેસાઈ કનુભાઈ તાલજીભાઈ (પિતા)
૯. વાલીની વાર્ષિક આવક : _____
૧૦. વાલીનું પુરુષ સરનામું : 116 - Devbhumi Society, Modvasa - Aravalli
૧૧. વિદ્યાર્થીનું મોડાસાનું પુરુ સરનામું : 116-A દેવભુમિ સોસાયટી, મોડાસા (અરવલ્લી)
ફોન નંબર : _____ વિદ્યાર્થીનો મો.નં. 7802908981 વાલીનો મો.નં. 9879759371
૧૨. વિદ્યાર્થીનું વતન પુરુષ સરનામું : જ્ઞાતિ : જતાણા દાખરા તા : મોડાસા જી : અરવલ્લી
૧૩. આધાર કાર્ડ નં. 4983 1276 0029

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું ચુસ્તપણે પાલન કરવા બાંહેધરી આપું છું. હું નિયમિત રીતે હાજરી આપીશ.

[Signature]
વાલીની સહી

[Signature]
વિદ્યાર્થીની સહી

ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા

ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત



સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B")

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

શી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicape

તારીખ : _____

વિષય : Kitchen Accounting & Composting
પ્રવેશ આપવામાં આવે છે / આવતો નથી.

[Signature]
આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add-on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું બંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : ૦૧-૦૨-૨૦૨૩

વિદ્યાર્થીની સહી : D.K. Rajbani

૧. પુરું નામ : (અંગ્રેજીમાં) Rajbani Dhruv Rajkumbhani
પુરું નામ : (ગુજરાતીમાં) રજાણી ધવલ કરકાભાઈ
(અટક પહેલી લખવી)
૨. જન્મ સ્થળ : મોડાસા તાલુકો : મોડાસા જિલ્લો : અરવલ્લી
૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) 29-05-2004 ઈ. ધર્મ : હિન્દુ
૪. જ્ઞાતિ : OBC (પછાત વર્ગના હોય તો વિગત દર્શાવવી)
૫. રાષ્ટ્રીયતા ભારતીય ૭. પરણિત/અપરણિત : અપરણિત
૬. વાલીનું પુરું નામ અને સગપણ : રજાણી કરકાભાઈ માલજીભાઈ (પિતા)
૭. વાલીની વાર્ષિક આવક : _____
૮. વાલીનું પુરું સરનામું : અમાના જાપરા, તા:- મોડાસા, જિ:- અરવલ્લી
૯. વિદ્યાર્થીનું મોડાસાનું પુરું સરનામું : _____
ફોન નંબર : _____ વિદ્યાર્થીનો મો.નં. 9106979661 વાલીનો મો.નં. 9976019902
૧૦. વિદ્યાર્થીનું વતન પુરું સરનામું : અમાના જાપરા, તા:- મોડાસા, જિ:- અરવલ્લી
૧૧. આધાર કાર્ડ નં. 316072211953

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું યુસ્તપણે પાલન કરવા બાંહેધરી આપું છું. હું નિયમિત રીતે હાજરી આપીશ.

[Signature]
વાલીની સહી

[Signature]
વિદ્યાર્થીની સહી



ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B")

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

ફી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicape

તારીખ : _____

વિષય : Kitchen Breeding & Microbiology
પ્રવેશ આપવામાં આવે છે / આવતો નથી.

[Signature]
આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add-on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું બંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : 7-12-23

વિદ્યાર્થીની સહી : [Signature]

૧. પુરું નામ : (અંગ્રેજીમાં) Jodha Dhruvi Dilipsinh
પુરું નામ : (ગુજરાતીમાં) જોદ્ધા દ્રુવી દિલીપસિંહ
(અટક પહેલી લખવી)
૨. જન્મ સ્થળ : મોડાસા તાલુકો : મોડાસા જિલ્લો : અરવલ્લી
૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) 29-10-2003 ઠ. ધર્મ : હિન્દુ
૪. જ્ઞાતિ : _____ (પછાત વર્ગના હોય તો વિગત દર્શાવવી)
૬. રાષ્ટ્રીયતા ભારતીય ઇ. પરસિત/અપરસિત : _____
૮. વાલીનું પુરું નામ અને સગપણ : જોદ્ધા દિલીપસિંહ જોદ્ધાવલસિંહ
૯. વાલીની વાર્ષિક આવક : ૪ લાખ
૧૦. વાલીનું પુરું સરનામું : A-777 જાલંદા-૨ માલપુર રોડ, મોડાસા
૧૧. વિદ્યાર્થીનું મોડાસાનું પુરું સરનામું : A-777 જાલંદા-૨ માલપુર રોડ, મોડાસા
ફોન નંબર : 9427750605 વિદ્યાર્થીનો મો.નં. 9875265554 વાલીનો મો.નં. 9427750605
૧૨. વિદ્યાર્થીનું વતન પુરું સરનામું : કુદરવાડા, તા. મોડાસા, જિ. અરવલ્લી
૧૩. આધાર કાર્ડ નં. 965324368356

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું ચુસ્તપણે પાલન કરવા બાંહેધરી આપું છું. હું નિયમિત રીતે હાજરી આપીશ.

B.K.S.

વાલીની સહી

[Signature]

વિદ્યાર્થીની સહી



ધી મ.લા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૩૧૫, જિ. અરવલ્લી.

કાર્યાલયના ઉપયોગ માટે

ફી રસીદ નં. _____ Open / SC / ST / BAXI / EBC / Handicape

તારીખ : _____

વિષય : Kirchoff's Laws & Composites 2023-24

પ્રવેશ આપવામાં આવે છે / આવતો નથી.

આચાર્ય



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં ચાલતા COURSE Add on માં દાખલ થવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતો હોઉં તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર શિસ્તને અનુસરવા હું બંધાઉં છું.

સ્થળ : મોડાસા

લિ.

તારીખ : ૨૦-૧૨-૨૦૨૩

વિદ્યાર્થીની સહી : Henry A. Daskor

૧. પુરું નામ : (અંગ્રેજીમાં) DARJI HENY ALPESHBHAI
પુરું નામ : (ગુજરાતીમાં) દરજી હેની અલ્પેશભાઈ
(અટક પહેલી લખવી)
૨. જન્મ સ્થળ : રામગઢી તાલુકો : મૈદરજ જિલ્લો : અરવલ્લી
૩. જન્મ તારીખ (શાળા કે કોલેજમાં નોંધાયેલી) 19-8-2004 ધર્મ : હિન્દુ
૪. જ્ઞાતિ : હિન્દુ દરજી (પછાત વર્ગના હોય તો વિગત દર્શાવવી)
૫. રાષ્ટ્રીયતા ભારતીય ઇ. સરસિત/અપરસિત : અપરસિત
૬. વાલીનું પુરું નામ અને સગપણ : દરજી અલ્પેશભાઈ જૈડાભાઈ (પિતા)
૭. વાલીની વાર્ષિક આવક : _____
૮. વાલીનું પુરું સરનામું : શ્રી. શ્રી. રામગઢી, તા-મૈદરજ, જિ-અરવલ્લી
૯. વિદ્યાર્થીનું મોડાસાનું પુરું સરનામું : 125, જલદિપ બોમ્બારી, મૈદરજ રોડ, મોડાસા
ફોન નંબર : _____ વિદ્યાર્થીનો મો.નં. 9326308293 વાલીનો મો.નં. 9357639299
૧૦. વિદ્યાર્થીનું વતન પુરું સરનામું : શ્રી. શ્રી. રામગઢી, તા-મૈદરજ, જિ-અરવલ્લી
૧૧. આધાર કાર્ડ નં. 317242604080

બાંહેધરી પત્ર

યુનિવર્સિટી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં અમલી બનનાર ધારા ધોરણો અને શિસ્તના નિયમોનું હું ચુસ્તપણે પાલન કરવા બાંહેધરી આપું છું. હું નિયમિત રીતે હાજરી આપીશ.

A.J.D.
વાલીની સહી

Henry A. Daskor
વિદ્યાર્થીની સહી



32
127

Botany Department
Sir P. T. Science College, Modasa

Add on Course
Attendance Register
Year -2023-24

Roll No	Name	Dates																
		7/12	8/12	9/12	10/12	14/12	15/12	16/12	17/12	21/12	22/12	23/12	24/12	28/12	29/12	30/12	31/12	4/01
1.	Mansha Adnan	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
2.	Danish Bhalaji	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
3.	Darshak K.	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid
4.	Rohinikant K.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.	D.K.R.
5.	Tadha Shivaji	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid	Quid
6.	Darshika A.	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
7.	Gayatri ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.	ISKA N.
8.	Charan Chandra	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan
9.	Vishnu V.K.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P	V.M.P
10.	Kajino. P.	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
11.	Anamika M.	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A	N.M.A
12.	Pooja N.	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
13.	Aarohi K.	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
14.	Shalini P.	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P	S.A.P
15.	Ganesh B.	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
16.	Pranshi B.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.	B.S.

Principal
Sir P. T. Science College
Modasa-383315, Dist. Anvalli.

ADD-ON COURSE IN KITCHEN GARDENING & COMPOSTING

(Effective from the Academic Session 2023-24)

DEPARTMENT OF BOTANY

SIR P T SCIENCE COLLEGE, MODASA

Date: 07/12/23 TO 04/1/24

RESULT SHEET

SR NO	NAME OF STUDENTS	MCQ-10 MARKS	Study Report-15 MARKS	Viva Voce-10 MARKS	Present-5 MARKS	Total-40 MARKS	GRADE
1	MANSURI ADNAN R	10	15	9	5	39	A
2	DAMOR BHARAT LAXAMANBHAI	10	15	9	5	39	A
3	DESAI DAKSH K	10	15	8	5	38	A
4	RABARI DHAVAL K	8	14	9	5	36	A
5	JODDHA DHRVI D	10	15	10	5	40	A
6	DARJI HENI A	9	14	9	5	37	A


Course coordinator


Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



SIR P.T.SCIENCE COLLEGE, MODASA



Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle

Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE


“KITCHEN GARDENING AND
COMPOSTING”

Organized by Department of Botany

Certificate

This is to certify that Munswari Adnan R.
Class B.Sc., Semester VI, Roll No. 01 has successfully
completed 30 hours Add on Course “**Kitchen gardening and
composting**” Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. Vediya
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date:
Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



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'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE


**"KITCHEN GARDENING AND
COMPOSTING"**

Organized by Department of Botany

Certificate

This is to certify that Damas Bhasat h.
Class B.Sc., Semester VI Roll No. 02 has successfully
completed 30 hours Add on Course "**Kitchen gardening and
composting**" Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. VEDIYA
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date:

Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



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Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE


**“KITCHEN GARDENING AND
COMPOSTING”**

Organized by Department of Botany

Certificate

This is to certify that Desai Daksh K.
Class B.Sc., Semester VI, Roll No. 03 has successfully
completed 30 hours Add on Course **“Kitchen gardening and
composting”** Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. Vediya
HOD, Dept. of Botany


Dr. R.P. PATEL
Principal

Date:

Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



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THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

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Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE


“KITCHEN GARDENING AND
COMPOSTING”

Organized by Department of Botany

Certificate

This is to certify that Rabasi Dhaval J.L.
Class B.Sc., Semester VI Roll No. 04 has successfully
completed 30 hours Add on Course “**Kitchen gardening and
composting**” Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. Vediya
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date:

Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle

Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE


**“KITCHEN GARDENING AND
COMPOSTING”**

Organized by Department of Botany

Certificate

This is to certify that Rabari Dhaval J.L.
Class B.Sc., Semester VI Roll No. 04 has successfully
completed 30 hours Add on Course **“Kitchen gardening and
composting”** Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. Vediya
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date: 7-3-2024
Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

“KITCHEN GARDENING AND
COMPOSTING”

Organized by Department of Botany

Certificate

This is to certify that Jodha Dheevi D.
Class B.Sc., Semester VI, Roll No. 05 has successfully
completed 30 hours Add on Course “**Kitchen gardening and
composting**” Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. Vediya
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date: 7-03-2024

Place Modasa



SIR P.T.SCIENCE COLLEGE, MODASA



Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
Status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

**“KITCHEN GARDENING AND
COMPOSTING”**

Organized by Department of Botany

Certificate

This is to certify that Darji Henry A.
Class _____, Semester ____, Roll No. 06 has successfully
completed 30 hours Add on Course “**Kitchen gardening and
composting**” Year 2023-24. which was organized by Department
of Botany from 07/12/23 to 04/01/24 at college campus.


Dr. H. S. Kharadi
Course Coordinator


Dr. S. D. VEDIYA
HOD, Dept. of Botany


Dr. K.P. PATEL
Principal

Date: 7-3-24
Place Modasa



Add-on Course on Basic Knowledge of Computer

Registration Fee: Free

Last date: 30 July 2023



Organized by DEPARTMENT OF PHYSICS Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of Internet address.
- Interest in learning computer.

Description

'Micro Soft Office' makes desk top work easy

- The course includes the following topics: **Basic Knowledge of Computer Course**, and **Basic Knowledge of Computer Course**.

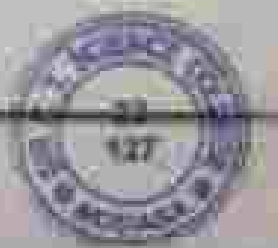
It is organized into four sessions

1. Basic Concepts
2. Basic Concepts
3. Hard Disk
4. Software

What will be the benefit

- Easy to understand concepts of MS-Office
- University, college and train students using 'Basic Knowledge of Computer Course'
- 2023 is expected to gain the **certification of the course** in **Computer Science**.

For more details visit the following website: [www.sptsc.edu.in](#)



OBJECTIVE: The course is designed to give 22 (twenty two) students a basic level appreciation programme in a common area. After completing the course the students are expected to able to use the computer for their purpose in processing all communication letters, reports, memos, etc. in format like word, tables, spreadsheets, etc. This course is a career map or foundation to be able to work in computer work by making their ability to use the computer. This would also be the ITC graduation program. To a subject, **word processing** communication. Students are expected to be able to use the computer and apply in the world of Information Technology.

Course Content

1. **Operating System:** This is a Chapter. Basic operations of Computer Components of Computer System: Central Processing Unit (CPU), VDU, Keyboard and Mouse, basic application software, Computer Memory, Concepts of Hardware and Software, Concept of Formatting, Data and Software, Applications of MS-Word, Connecting keyboard, mouse, monitor and printer to CPU and checking device setup.

2. **Operating Application using GUI Based Operating System:** What is an Operating System, Start up Program, Operating System, File Management, Using Mouse, Using Right Mouse of the Mouse and Mouse, Icons and the screen, Use of Computer, Using Mouse and Mouse, Keyboard, Keyboard Applications, Viewing of File, Folder and Directory, Creating and Renaming of File and Folder, Opening and Closing of Address Window, Using Logic, Creating Shortcuts, Basics of Windows, Common window.

3. **Formatting Word Processing:** Word Processing, Bold, Italic, Underline and Changing of Paragraph, Word, Font and Alignment, Formatting of Word, Using Formatting, Spell Check, Language and the word processor, Printing of word processing.

4. **Using Spread Sheet:** Basics of Spreadsheet, Manipulation of cells, Formulae and Functions, Editing of Spread Sheet, Printing of Spread Sheet.

Course Duration: 28 weeks

Course Commencement: From 2nd August 2023

Course Coordinator: Dr. R. B. Prasad



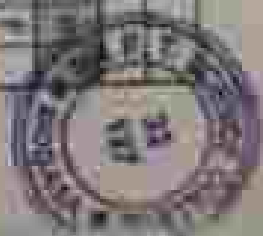
SIR P.T.SCIENCE COLLEGE,MODASA

Add on course: Basics of Computer

Sl. No.	Roll No.	Student Name	Sex	Signature
1	1301	HARSHITAKH MAHESHKUMAR PATEL	Female	<i>[Signature]</i>
2	1302	HEERAM KANODIYAN PATEL	Female	<i>[Signature]</i>
3	1303	KANCHANDA JITENDRASING ZALA	Female	<i>[Signature]</i>
4	1304	MAETRI GHANSHYAMKUMAR PATEL	Female	<i>[Signature]</i>
5	1305	MALLIKHUMAR MANUBHAI BHADORA	Male	<i>[Signature]</i>
6	1306	MENULBHAI JAYANIBHAI DAMOR	Male	<i>[Signature]</i>
7	1307	NIPTAI ABDULHAQ SUTHAR	Female	<i>[Signature]</i>
8	1308	NIDHI VINODKUMAR PATEL	Female	<i>[Signature]</i>
9	1309	PARSHVAKUMAR KALASHI KHANT	Male	<i>[Signature]</i>
10	1310	PRITI SURESHKUMAR PRAJAPATI	Female	<i>[Signature]</i>
11	1311	SAJITHA SRIKANTHAKUMAR KUSHKAWALA	Female	<i>[Signature]</i>
12	1312	VEENAMANJUN SACHINKUMAR CHAUDHARI	Female	<i>[Signature]</i>
13	1313	RISHMIBHAI HADILULKHAHPATIL	Female	<i>[Signature]</i>
14	1314	JAYDIPSHI BABUBHAI TARA	Male	<i>[Signature]</i>

[Signature]
 Sir P. T. Science College
 Modasa-380015, Dist. Anand





Sl. No.	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
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Sri P. T. Science College,
Modasa-380013,Gujarat.

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SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.J. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department

Certificate

This is to certify that
Class M.Sc., Semester-3, Roll No. _____ has successfully
completed 30 Hours Add on certificate Course
"Basics of Computers" organized by Department of
Physics from 02-08-2023 TO 04-09-2023 at college campus.


Controller of Examinations

DR. H. S. VADHIA
Phone: 300658


Head of Department, Physics





Principal
Sir P. T. Science College
Modasa-382015, Dist. Anand.

SIR P T SCIENCE COLLEGE, MODASA



SYLLABUS FOR ADD-ON COURSE

IN

MEDICINAL AND AROMATIC PLANTS

(Effective from the Academic Session 2023-24)



COURSE COORDINATOR: Prof. A. Z. Chaudhari

YEAR: 2023-24

Date: 07/12/22 TO 31/12/23

DEPARTMENT OF BOTANY

MEDICINAL PLANTS AND AROMATIC PLANTS

Introduction to medicinal plants and aromatic plants will prove to be effective in creating awareness for benefits of medicinal and aromatic plants, increasing conservation and employment as well as entrepreneurial opportunities. It will introduce to medicinal plants and aromatic plants how they can be used to treat illnesses and cultivation of aromatic plants. Students can investigate marketing strategies for medicinal and aromatic crops and determine buyers' requirements. Throughout the course, you will examine both the historical and biochemical aspects of integrating plant-based medicine into your own personal health plan. You will examine each of the body's systems in detail and develop an understanding of what plants might be useful in treating that system, based on knowledge collected from around the world. It also provides information on various strategies of plant use, the importance of traditional knowledge to Western culture, and the role of plant conservation and cultural sustainability. Students also learn about entrepreneurship and Start-up opportunities based on market for Indian Traditional Medicinal and Aromatic plants.

REQUIREMENTS

- Student-participants: B Sc students.
- Teachers: Internal Faculty members of Department of Botany, Sri P T Science College, Modasa. External faculty members, research scholars and scientists may be invited to conduct some classes depending on their willingness and availability.
- Course Fee: Nil.
- Contact hours: 30 hrs.
- Class/Lecture duration: 1 hr.

OBJECTIVES OF THE COURSE

- To aware learners (student, faculty, professional) about the rich Indian traditional knowledge of medicinal and aromatic plants, their protection, regulations, quality control and market.
- To aware learners about cultivation, conservation, value addition and socio-economic development through the knowledge of Indian Traditional Medicinal and Aromatic plants.
- Acquaintance with government type of drug preparation.
- Understand various phytochemicals involved in their properties.
- Understand the importance of preservation and conservation of indigenous medicinal plants.

EXPECTED OUTCOMES OF THE COURSE

After completing the course, the students will have the knowledge and skill to do the following:

- Evaluate modern plant-based medicines by exploring their histories, common biochemical and pharmacological properties, and safety considerations.
- Consider the properties of medicinal and Aromatic plants and how they can be used in the treatment of different illnesses and for extraction of volatile oils.
- Develop the skill and methods to collect and preserve plant materials.
- Be able to recognise patterns of human plant selection for food, medicine, poison, ritual, religion, volatile oils and aesthetic values.
- Understanding important interactions between cultural practices, ecosystems and modern science.
- Know and/or identify important medicinal and Aromatic plant species.
- Discover how medicinal plants may help boost natural immunity to defend against disease.
- Have knowledge on the practical application of medicinal and Aromatic plants in their surroundings.

Date: 07/12/23 TO 31/12/23

Syllabus contents

Unit	Course contents (Theory)	Class/Lectures
1	Introduction of medicinal And Aromatic plants, Plants based medicine, Product used in cosmetic companies The relevance of medicinal plants in the present context	02
2	General Crop Production and Management Entrepreneurship and start up opportunities in Plants	02
3	Role of medicinal plants in modern medicine with some of home common medicinal plants	01
4	Crop Production of Selected Medicinal Plants Aromatic Plant: Essential oils	01
5	History, Scope and importance of medicinal and Aromatic plants with some common examples; Application of natural products to certain common diseases	01
6	Conservation of medicinal and Aromatic plants	01
Total no. of lectures		08

*Duration of 01 class/lecture = 01 hour.

Practical/Field study	
1	Study of medicinal and Aromatic plants in the locality/botanical garden and collection of plants. (12 hours)

Examination pattern:

1. Multiple Choice Questions - 10 marks
 2. Viva voce - 10 marks
 3. Field study report - 20 marks
- Total Marks: 40

Grading pattern:

Percentage of marks obtained	Grade
90-100	Excellent - A
70-89	Good - B
50-69	Fair - C
40-49	Not Eligible for Certificate - D

SIR P T SCIENCE COLLEGE, MODASA

COURSE COORDINATOR: Prof A Z Chaudhari

YEAR: 2023-24

Date: 07/12/23 TO 31/12/23

Syllabus contents

Units	Course contents (Theory)	Class/Lectures
1	Introduction of medicinal And Aromatic plants; Plant based medicine; Product used in cosmetic companies; The relevance of medicinal plants in the present context.	02
2	General Crop Production and Management Entrepreneurship and start up opportunities in Plants.	02
3	Role of medicinal plants in modern medicine with examples of some common medicinal plants	01
4	Crop Production of Selected Medicinal Plants Aromatic Plant Essential oils	01
5	History, Scope and importance of medicinal and Aromatic plants; with some common examples; Application of natural products to certain common diseases	01
6	Conservation of medicinal and Aromatic plants	01
Total no. of lectures		08

*Duration of 01 class/lecture = 01 hour.

Practical/Field study

1	Study of medicinal and Aromatic plants in the locality/botanical garden and collection of plants. (11 hours)
---	---

Examination pattern:

1. Multiple Choice Questions - 10 marks
2. Viva-voce - 10 marks
3. Field study report - 20 marks

Total Marks = 40

Grading pattern:

Percentage of marks obtained	Grade
90-100	Excellent - A
70-89	Good - B
50-69	Fair - C
40-49	Not Eligible for Certificate - D

SIR P.T. SCIENCE COLLEGE, MODASA



Minutes

A meeting of the committee consisting by the following members was held on 15-06-2023 to discuss the syllabus of add on course by Botany Department to be started in the college. The following members were present in this meeting. The attached syllabus of 30 hours "ADD ON COURSE ON: "Medicinal and Aromatic Plants-2023-24" is approved by this committee after deliberation.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. M.S.JANGID	Associate Professor	
7	Dr. H.S.KHARADI	Associate Professor	
8	Dr. U.C.GUPTA	Assistant Professor	
9	Prof.A.Z. CHAUDHARI	Assistant Professor	

Principal

Sir P. T. Science College
Modasa-383315, Dist. Anand.

SIR P. T. SCIENCE COLLEGE, MODASA

DEPARTMENT OF BOTANY

ADD-ON COURSE IN

MEDICINAL AND AROMATIC PLANTS

(Effective from the Academic Session 2023-24)

Date: 07/12/23 TO 04/01/24



RESULT SHEET

SR NO	NAME OF STUDENTS	MCQ-10 MARKS	Field Study Report-15 MARKS	Viva Voce-10 MARKS	Present-5 MARKS	Total-40 MARKS	GRADE
1	Dalchini Nandkishor Gudbi	08	14	05	05	35	
2	Badi Gauranhi Pranvi	09	15	07	05	36	
3	Ryates Navnitha Pall	08	14	07	05	35	
4	Karvunj Kalathi Asada	08	15	08	05	36	
5	Shales Jhambhik Pall	08	14	07	05	34	


Sir P. T. Science College
Modasa-370115, Dist. Anant

SIR P. T. SCIENCE COLLEGE, MODASA
DEPARTMENT OF BOTANY
DETAILS OF ADD ON COURSES



S.NO	ADD ON COURSES	PERIOD OF TIME	CO-ORDINATER	STUDENT NO OF REGISTER
YEAR:2021-2022				
1	WATER QUALITY	02/09/21 TO 30/09/21	DR. S.O. VEDHA	05
YEAR:2022-2023				
2	ETHANOBOTANY AND MEDICINAL PLANT	01/12/22 TO 31/01/23	DR. M.S. JANGID	09
YEAR:2023-2024				
3	KITCHEN GARDENING AND COMPOSTING	07/12/23 TO 06/01/24	DR. H.S. KHURDAR	06
4	SCIENTIFIC RESEARCH PAPER WRITING	01/12/23 TO 31/01/24	DR. U.C. GUPTA	05
5	MEDICINAL AND AROMATIC PLANTS	07/12/23 TO 04/01/24	PROF. A. Z. CHAUDHARI	05


Sir P. T. Science College
Modasa-383015, Dist. Anand



SIR P T SCIENCE COLLEGE, MODASA

COURSE COORDINATOR: Prof A Z. Chandhari

YEAR: 2023-24

Medicinal And Aromatic Plants

Date: 07/12/23 TO 04/01/24

Sr No	Roll No	Student name	Sign
1	5302	Balvinkaur Narindrasinh Gandhi	B. V. Gandhi
2	5304	Bindi Gunvantibhai Pranani	B. Pranani
3	5320	Riyaben Navnitbhai Patil	R. Patil
4	5321	Rutvikraj Kalabhai Azoda	R. Azoda
5	5324	Shalini Jitendraibhai Patel	S. J. Patel

Handwritten signature

Sir P. T. Science College
Modasa-370215, Gujarat, India

ધી મા.ભા. ગાંધી ઉચ્ચતર કેળવણી મંડળ, મોડાસા
સંચાલિત

શ્રી પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૨૧૧, વિ. અમરવલી

કાર્યાલયના કાર્યકાર માટે

ODD / SC / ST / BAW / EBC / Handicapped



સાચવડી

ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આપણી કોલેજમાં આજના COURSE _____ માં દાખલ થવા માટે ખત્રી હું અરજી કરતો છું. કોલેજમાં અભ્યાસ કરી તે વખત કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર વિદ્યાને અનુભવવા માટે મને _____

જાણી મું. _____
સંજ્ઞા: મોડાસા વિ. અમરવલી
વિદ્યાલયની સહી: [Signature]

- ૧. પુસ્તક નામ : (અંગ્રેજીમાં) Gandhi Bahinabhaiji Mahatma Charit
- ૨. પુસ્તક નામ : (ગુજરાતીમાં) ગાંધી બાહાવીભાઈ મહાત્માજી
- ૩. (સરકાર પસંદગી વાળા પુસ્તક)
- ૪. પુસ્તક ભાષા : ગુજરાતી ભાષામાં : મોડાસા જિલ્લામાં : અમરવલી
- ૫. પુસ્તક ભાડેલ (સામાન્ય કે કોલેજમાં અભ્યાસમાં) : સહકારી સંસ્થા જ. નામ : ગોપ
- ૬. કારણ : _____ (પાલન કરીને કોલેજની વિધિનું પાલન કરવામાં)
- ૭. સંબંધિત સહી : ભાડેધરી જ. પાસવોર્ડ/સહી : અમરવલી
- ૮. આરજીનું પૂર્ણ નામ અને સંબંધ : મોડાસા અમરવલી ગોપીકાંતભાઈ
- ૯. આરજીની અધિક ભાજક : 70000/-
- ૧૦. આરજીનું પૂર્ણ સંબંધ : મોડાસા તા. મોડાસા જી. અમરવલી
- ૧૧. વિદ્યાલયનું પસંદગીનું પૂર્ણ સંબંધ : _____
- ૧૨. કોલેજ નંબર : _____ વિદ્યાલય નં. ૩૩૫૧૬૭૩૬૬ વાણીનો નં. ૮૩૬૫૫૬૬૬૫૦
- ૧૩. વિદ્યાલયનું પાલન પૂર્ણ સંબંધ : મોડાસા તા. મોડાસા જી. અમરવલી
- ૧૪. આરજીનું સહી નં. : ૩૩૫૧૬૭૩૬૬૬૬૬૬

ભાંદેધરી પત્ર

આરજીમાં આરજી અને કોલેજના પ્રવાહિતા તેમજ અધિકારમાં આરજીના પાલન તથા ધોરણો અને વિદ્યાલય વિધિનું હું પુસ્તકવડી તથા અરજી ભાંદેધરી કરતો છું. હું નિયમિત રીતે આરજી આપીશ.

N. ભાંદેધરી
આરજીની સહી

[Signature]
વિદ્યાલયની સહી

SIR P. T. SCIENCE COLLEGE, MODASA

Managed by

THE M. L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Panchajanya's Swami Dayal University, Varanasi
Accredited with 'B+' Grade (3D CGPA) by NAAC in the 2nd Cycle

Since started by UGC AND

'A' Grade (CGPA 3.0) in AQA by RCI (Govt. of Odisha)

ADD ON COURSE

"MEDICINAL AND AROMATIC PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Shabini Jitendrakbhai Patel
Class -, Semester 9th, Roll No. 5724 has successfully
completed 30 hours Add on Course "Medicinal and Aromatic
Plants 2023-24" which was organized by Department of Botany
from 07/12/23 to 04/01/24 at college campus.

Prof. A. Z. Chaudhary

Course Coordinator

Dr. S. D. Vedula

HEAD, Dept. of Botany

Dr. K. P. PATEL

Principal

Date:

Place: Modasa

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Accredited with "B" Grade (C.A) OIPA by NMAC in the 2nd Cycle

Approved by UGC ADD

*A Grade (OIPA) B.U. in A.A. by KCU Kuv. of Gujarat

ADD ON COURSE

"MEDICINAL AND AROMATIC PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Rutubhoy Kalabhai Asode
Class ---, Semester II, Roll No. 5221 has successfully
completed 30 hours Add on Course "Medicinal and Aromatic
Plants 2023-24" which was organized by Department of Botany
from 07/12/23 to 04/01/24 at college campus.

Prof. A. Z. Chaudhas

Course Coordinator

Dr. S. D. Vadiya

HEAD Dept. of Botany

Dr. K. P. Patel

Principal

Date:

Place: Modasa

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Huzaravadiya North Gujarat University, Vadod
Accredited with 'B' Grade (2-D) GPA by NAAC in the 2nd Cycle

Grade awarded by DEC AIT

'A' Grade GPA & B Grade by KCO (Govt. of Gujarat)

ADD ON COURSE

"MEDICINAL AND AROMATIC PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Shri. Gunotkhai Pranam
Class _____, Semester VI, Roll No. 5299 has successfully
completed 30 hours Add on Course "Medicinal and Aromatic
Plants 2023-24" which was organized by Department of Botany
from 07/12/23 to 04/01/24 at college campus.



Dr. A. Z. Chaudhari

Course Coordinator



Dr. S.D. Vaidya

Head, Dept. of Botany



Dr. K.P. Patel

Principal

Date:

Place: Modasa

SIR P. T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Panchajanya's North Gujarat University, Gandhinagar
Surat (Dist. Surendra) - 390 001 (Gujarat) by NAAC in the 2nd Cycle

Score awarded by UGC, ASD

'A' Grade (CGPA 3.04) by UGC by 2003 (Dist. of Gujarat)

ADD ON COURSE

"MEDICINAL AND AROMATIC PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Rishabh Nayabhai Patel
Class _____, Semester II, Roll No. 5320 has successfully
completed 30 hours Add on Course "Medicinal and Aromatic
Plants 2023-24" which was organized by Department of Botany
from 07/12/23 to 04/01/24 at college campus.



Prof. A. Z. Choudhary

Course Coordinator



Dr. N. D. Vaidya

HOD, Dept. of Botany



Dr. R. V. Patel

Principal

Date:

Place: Modasa

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by

THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Dronacharya's Sanshiksha University, Pune
Recognized under UGC (201 COPA) by MME in the 2nd Cycle

Warrant provided by UGC (AID)

(A Grade (COPA 201) in AAY by KCI (Govt. of Gujarat)

ADD ON COURSE

"MEDICINAL AND AROMATIC PLANTS"

Organized by Department of Botany

Certificate

This is to certify that Balvikram Narendrasinh Gureki
Class , Semester III, Roll No. 2222 has successfully
completed 30 hours Add on Course "Medicinal and Aromatic
Plants 2023-24" which was organized by Department of Botany
from 07/12/23 to 04/01/24 at college campus.



Prof. A. Z. Chaudhari

Course Coordinator



Dr. S.B. Vedisa

HOD, Dept. of Botany



Dr. K.P. Patel

Principal

Date:

Place: Modasa







**ADD-ON CERTIFICATE COURSE
ON SCIENTIFIC RESEARCH PAPER
WRITING**

**DEPARTMENT OF BOTANY
SIR P.T. SCIENCE COLLEGE, MODASA**



Sir P. T. Science College
Modasa
Printed
at Sir P. T. Science College
Modasa

ADD-ON COURSE (DEPARTMENT OF BOTANY)

COURSE TITLE: SCIENTIFIC RESEARCH PAPER WRITING

COURSE DESIGN

COURSE BACKGROUND:

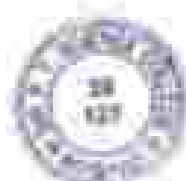
This course is designed to develop students' abilities to write effectively in the scientific community. Students will learn to write clear, concise, and well-organized scientific papers, research proposals, and literature reviews. The course will focus on the elements of good scientific writing, including structure, style, citation, and ethical issues.

REQUIREMENTS:

- Student-participants: Internal (students of B.Sc. Botany-Sem VI)
- Teachers: Internal Faculty members of Department of Botany. External faculty members, research scholars and scientists may be invited to conduct some classes depending on their willingness and availability.
- Course fee: Nil
- Intake Capacity: 20
- Contact hours: 30 hrs.
- Class/Lecture duration: 1 hr.

OBJECTIVES OF THE COURSE:

1. Upon completion of this course, students should be able to:
2. Understand the principles of scientific writing
3. Develop clear and concise scientific writing skills
4. Use effective scientific citation techniques
5. Understand and apply the ethical principles of scientific writing
6. Develop the ability to give and receive constructive feedback.



COURSE OUTLINE:

Week 1: Introduction to Scientific Writing **5 hours**

- Overview of the course
- Principles of scientific writing
- Overview of scientific research

Week 2: Understanding Research Proposals and Literature review **5 hours**

- Structure and format of research proposals
- Identifying research questions
- Structure and format of literature reviews
- Analysing and understanding a literature review

Week 3: Introduction to Scientific Papers **5 hours**

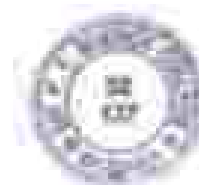
- Structure and format of scientific papers
- Writing a compelling introduction
- Developing a clear methodology
- Results and analysis

Week 4: Communicating Results and Data **5 hours**

- Understanding data presentation
- Developing tables and figures
- Using effective graphic design

Week 5: Scientific Citation and Referencing **5 hours**

- Understanding citation styles
- Citation and plagiarism
- Referencing in scientific writing



Week 6: Ethical Issues in Scientific Writing

5 hours

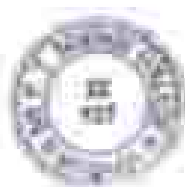
- Ethical principles in scientific writing
- Misconduct and fraud in scientific writing
- Peer review and publication ethics

ASSESSMENT:

- A. Class participation (20 MARKS)
- B. Identification of scientific problem and writing a review research paper on it which will be evaluated from the following points:
 - (i) Identification of scientific problem (20 MARKS)
 - (ii) Scientific paper framework (20 MARKS)
 - (iii) Introduction and review (20 MARKS)
 - (iv) Citation writing (20 MARKS)

STUDENT FEEDBACK:

- It will be collected via Google Form after completion of the course.



Anna
Principal
SV P. T. Srinivas College
Mylapore, Chennai - 600 004



SIR P. T. SCIENCE COLLEGE, MODASA.

DEPARTMENT OF BOTANY.

ADD ON COURSE: SCIENTIFIC RESEARCH PAPER WRITING

SRL NO.	ROLL NO.	STUDENT NAME	GENDER	SIGN
1.	5311	Risha Mohammadsaid Gujarati	FEMALE	
2.	5315	Mahammadnadr Mahammadfarooqiyah Qureshi	MALE	
3.	5316	Mahak Premdas Vaidya	FEMALE	
4.	5317	Muhammad Furkan AlRahmani Kori	MALE	
5.	5318	Nehakumari Manojkumar Asari	FEMALE	



Principal
Sir P. T. Science College
Modasa

Sir P. T. Science College, Modasa
Add on Course Module

2023-24

Day	Date	Theory	Practical	Project	Total Hours
Thursday	7/12/23	10.00am to 11.00am Thursday	---	---	4 hours Theory
	14/12/23				
	21/12/23				
	28/12/23				
Friday	8/12/23	10.00am to 11.00am Thursday	---	---	4 hours Theory
	15/12/23				
	22/12/23				
	29/12/23				
Saturday	9/12/23	-----	-----	At Your Place Thursday	7hours Practical + 11hours Compilation
	16/12/23				
	23/12/23				
	30/12/23				
Sunday	10/12/23	-----	9.00 am to 1.00pm Thursday	-----	15 Hours Field work + 1Hours Project Reporting
	17/12/23				
	24/12/23				
	31/12/23				
Exam Schedule					
4/1/2024	2 hours	MCO Test	Project Report Submission Presentation	Viva-voce	



શ્રી મ.હા. ગોંડેરી સુબંધિત ડેવલપ્મી મંડળ, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ રોડ, મોડાસા-૩૮૩૨૧૧, Pin. સાવલો.

વ્યાજવિધવા કાર્યક્રમ માટે



ડી સીટ નં. _____ Open / SC / ST / BAX / EBC / Handicap
 વાર્ષિક : _____
 વિષય : _____
 પ્રવેશ પાત્રવામાં કામો છે / છાવડે નથી. સાવલો

ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

અભ્યાયર્થી,

આપની કોલેજમાં આજીઠા COURSE સુર પી માં દાખલ થવા માટે જાણી શું અરજી કરશે શું. કોલેજમાં દાખલ થવાનો ફોર્મ તે વખત કોલેજના સિબો તથા પ્રોફેસરનું પાસ વરખ લેવા કોલેજમાં અને કોલેજની પહોંચી પહોંચી મિલાને અરજી કરવા શું બંધાઈ શું.

સ્થાન : મોડાસા જિ. સુર
 વાર્ષિક : _____ વિદ્યાર્થીની નામ : _____

૧. પુરું નામ : (સંવેદનમ) GUJARATI ILSHA MO-SADIK.
૨. પુરું નામ : (અંગ્રજીમાં) ગુજરાતી દિલ્સા મો સાદિક
૩. જન્મ સ્થાન : મોડાસા જિલ્લો મોડાસા રાજ્ય ગુજરાત
૪. જન્મ તારીખ (આજીઠા કોલેજમાં નોંધાયેલી) ૨૩/૩/૨૦૦૫ ર.ખં. મુસ્લિમ
૫. ધર્મ : મુસ્લિમ ધોણી (આજીઠા વર્ષના રીક તે સિવાય વર્ષોથી)
૬. રાષ્ટ્રીયતા ભારતીય ર. પદવિનિયંત્રણ અપવહિત
૭. વાર્ષિક પુરું નામ અને સ્થાન : ગુજરાતી મો સાદિક ગુજાનરવેન
૮. વાર્ષિક વાર્ષિક સંખ્યા : _____
૯. વાર્ષિક પુરું સંખ્યા : જમાલપાલ, કાદરો જસજીદ સાનિ, મોડાસા
૧૦. વિદ્યાર્થીનું મોડાસાનું પુરું સંખ્યા : જમાલપાલ, કાદરો જસજીદ સાનિ, મોડાસા
૧૧. ડોન નંબર : _____ વિદ્યાર્થીની મો.નં. 909112525 વાહન નં. 9016046931
૧૨. વિદ્યાર્થીનું વાત પુરું સંખ્યા : મોડાસા, જમાલપાલ કાદરો જસજીદ સાનિ
૧૩. આજીઠા નં. 4352 5377 5135

બાંહેધરી પત્ર

શુનિવર્તિત અને કોલેજમાં પ્રવેશિત તેમ જ સિબોમાં આજીઠા દાખલ થવા પહેલાં અને વિદ્યાર્થી વિદ્યાર્થીનું શું પુસ્તકો પ્રાપ્ત કરવા બાંહેધરી કરાવું શું શું નિશ્ચિત રીતે કરવી જરૂરી.

મો સાદિક મુસ્લિમ ગુજરાતી
 વાર્ષિકી નામ

સુર
 વિદ્યાર્થીની નામ



શ્રી મ.વા. ગાંધી ઉચ્ચતર શૈક્ષણિક મંડળ, મોડાસા
સંચાલિત

સર પુરુષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ રોડ, મોડાસા-૩૮૩૩૧૫, જિ. જાલજોડી.

અધિકારિત વિષયોગ માટે

શ્રી કક્ષેત્ર નં. _____ Open / BC / ST / BAX / EBC / Handicap
 વાર્ષિક : _____
 વિષય : _____
 પ્રવેશ સમયગાળાં અને ટે / સમયો તરીકે. અભ્યાસ



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આમની કોલેજમાં આજના COURSE SRPU માં અભ્યાસ કરવા માટે જાણી દુ અરજી કરવા જે. કોલેજમાં અભ્યાસ કરવાથી કોઈ જે વળા કોલેજના મિત્રો તથા પાંચાત્રીનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર મિત્રોને અનુરૂપતા જે મેળવી જે.

સ્થાન : મોડાસા જિ. જાલજોડી
 વાર્ષિક : _____ વિદ્યાર્થીની તરીકે : V.M.P

૧. પુરુષ નામ : (અંગ્રેજીમાં) Vaishnav Mahesh Giramdas
 પુરુષ નામ : (ગુજરાતીમાં) વૈશ્ણવ મહેશ કેમદાસ
 (અરજક પહેલી લખવી)
૨. જન્મ સ્થાન : કેલવલ તાલુકો : કેલવલ જિલ્લો : પીલ્કાપુર
૩. જન્મ તારીખ (આમને કોલેજમાં નોંધાવેલી) : ૧-૧-૨૦૦૪ જ. અં. : હિંદુ
૪. ધર્મ : હિંદુ - વૈશ્ણવ (પણત્રા પાનના કોય તો વિસ્તાર લખાવવી)
૫. સમુદાય : હિંદુ (ભારતીય) જ. મર્યાદા/અમર્યાદિત : _____
૬. આગળનું પુરુષ નામ અને સ્થાન : વૈશ્ણવ કેમદાસ ગીરમદાસ
૭. આગળની વાર્ષિક ખર્ચ : 1,20,000
૮. આગળનું પુરુષ સરનામું : વૈશ્ણવ કેમદાસ ગીરમદાસ
૯. વિદ્યાર્થીનું મોડાસાનું પુરુષ સરનામું : A/50 ગોકુલ અંબાલીક ડીસપુર રોડ, ઘનપુરા
 કોલ નંબર : 8141035671 વિદ્યાર્થીનું મો. નં. 9328391974 વલ્લભી મો. નં. 8247635671
૧૦. વિદ્યાર્થીનું વાત પુરુષ સરનામું : A/50 ગોકુલ અંબાલીક ડીસપુર રોડ, ઘનપુરા
૧૧. અભ્યાસ કરત નં. : ૩૨૬૮ ૬૧૬૧ ૫૨૨૩

જાહેદરી પત્ર

શુનિષ્કરિતી અને કોલેજના પ્રવર્તમાન તેમજ અગતિયાં અમલો અભ્યાસ વાત ઘેરવે અને સિદ્ધતા મિત્રોનું જે શુભચાલો પાલન કરવા જાહેદરી આપું જે. જે નિશ્ચિત જે જે અમલો અમલો.

વાલીની તરીકે

V.M.P
વિદ્યાર્થીની તરીકે



સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ રોડ, મોડાસા-૩૮૩૧૧૫, વિ. અરણ્યકો.

કાર્યાલયના ઉપયોગ માટે



શ્રી સ્ત્રી નામ : _____ Open / SC / ST / B.A.T / EBC / Handicapped
 તારીખ : _____
 સ્થાન : _____
 અન્ય કારણોમાં આવે છે / સાબીત કરી. _____

ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આજ્ઞાપત્રી,

અહીંની કોલેજમાં સાબીત COURSE: S.P.P.O માં પ્રવેશ મેળવવા માટે આથી હું અરજી કરું છું. કોલેજમાં અભ્યાસ કરતી કોઈ એ વ્યક્તિ કોલેજના નિયમો તથા કોલેજોનું વ્યવસ્થા કરવા તેમજ કોલેજમાં અને કોલેજની બહાર વિદ્યાને અનુભવવા હું ઇચ્છું છું.

સ્થાન : કોલેજોનું

વિ.

તારીખ : _____

વિદ્યાર્થીની નામ : Furkan

- પુરું નામ : (અંગ્રેજીમાં) Mrs. Furkan Akhbar
 પુરું નામ : (ગુજરાતીમાં) કમળાકુમાર અરણ્યકો
 (અન્ય પદોની વચ્ચે)
- જન્મ સ્થાન : કોલેજો તાલુકો : કોલેજો જિલ્લો : કોલેજો
- જન્મ તારીખ (સમય કે કોલેજમાં નોંધાયેલી) : 02/10/2004 વ. બં : કોલેજો
- શિક્ષણ : કોલેજો (સમય વર્ગના લેવ તે વિગત સહીમાં)
- સંબંધો : કોલેજો ઇ. પ્રવેશવિધિવિધિ : કોલેજો
- તારીખનું પુરું નામ અને સંખ્યા : કોલેજો કોલેજોના કોલેજોના : કોલેજો
- તારીખની વાર્ષિક સંખ્યા : કોલેજો
- તારીખનું પુરું સંખ્યા : કોલેજો કોલેજોના કોલેજોના કોલેજોના : કોલેજો
- વિદ્યાર્થીનું મોડાસાનું પુરું સંખ્યા : કોલેજો કોલેજોના કોલેજોના કોલેજોના : કોલેજો
- કોલેજ નંબર : 9222694386 વિદ્યાર્થીનો પી.નં. : _____ તારીખનો પી.નં. 9875218224
- વિદ્યાર્થીનું વ્યાજ પુરું સંખ્યા : કોલેજો કોલેજોના કોલેજોના કોલેજોના : કોલેજો
- અરજી કરેલ નં. : 4529 2882 2665

બાંહેધરી પત્ર

કુલિયાકોલેજી અને કોલેજના અધ્યક્ષને તેમજ અધિકારીને આથી અભલાદા થવા કોલેજને અને વિદ્યાર્થીને નિયમોનું હું પુસ્તકમાં અભલાદા કરવા બાંહેધરી કરું છું. હું નિયમિત રીતે અભલાદા કરીશ.

A.D. [Signature]
વાંહેધરી કરી

[Signature]
વિદ્યાર્થીની કરી



શ્રી ન.કે. ગોંડી ઉચ્ચતર કોલેજી મેડન, મોડાસા
સંચાલિત

સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ કેમ્પસ, મોડાસા-૩૮૩૧૧૧, ઈ. ગુજરાતી.

કાર્યાલયના ઉપલેખ માટે

ડી રજી. નં. _____ Open / SC / ST / BALE / EBC / Handicap
 તારીખ : _____
 સ્થાન : _____
 પ્રવેશ અભ્યાસમાં આમે છે / આપવી નથી. સહચારી



ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આચાર્યશ્રી,

આપની કોલેજમાં આગામી COURSE SRPW માં અભ્યાસ કરવા માટે આવી હું અરજી કરતાં હું. કોલેજમાં અભ્યાસ કરતી કોર્સે તે વખતે કોલેજના નિયમો તથા ધોરણોનું પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર સિદ્ધાંતો અનુસરવા હું બંધાયેલો છું.

સ્થાન : સોડાસો જિ. _____
 તારીખ : _____ સિદ્ધાંતી સહી : Chapman M.A.

૧. પુસ્તક નામ : (અંગ્રેજીમાં) Chapman Maheshwari Physics Maheshwari Hiranji Mehta
 પુસ્તક નામ : (ગુજરાતીમાં) કોઈપણ સરનામ સહી સરનામ ૧૩૧ સોડા
 (સરનામ પહેલી વખતથી)
૨. વખત સ્થાન : સિદ્ધાંતસર તા. સિદ્ધાંતસર સ્થાન : સોડાસો
૩. વખત તારીખ (આગામી કે કોલેજમાં નોંધાયેલી) 15-11-2003 ર.ખ. સિદ્ધાંતસર
૪. જ્ઞાતિ : સુવિદ્ય સિપાઈ (પાસલ નામના ઉપ તે સિવાય આપવો)
૫. રાષ્ટ્રીયતા સિદ્ધાંતસર રા. સરનામસરનામ : સરનામસર
૬. આપીને પુસ્તક નામ અને સરનામ : કોઈપણ સરનામ ૧૩૧ સોડાસો સરનામસર : સરનામ
૭. આપીને વાર્ષિક ભાડાં : ૧૬૦૦૦/-
૮. આપીને પુસ્તક સરનામું : સરનામસર સરનામ સોડા સરનામસર, સોડાસર
૯. વિદ્યાર્થીનું મોડાસાનું પુસ્તક સરનામું : સરનામસર સરનામ સોડા સરનામસર, સોડાસર
 ફોન નંબર : _____ વિદ્યાર્થીનો મો.નં. ૯૮૧૧૯૫૨૦૯૯ આપીને મો.નં. ૯૮૧૧૯૫૨૦૯૯
૧૦. વિદ્યાર્થીનું વલન પુસ્તક સરનામું : સરનામસર સરનામ સોડા સરનામસર, સોડાસર
૧૧. આચાર સહી નં. ૬૭૧૯ ૬૬ ૬૬ ૬૦૮૮

જાહેદારી પત્ર

સુનિશ્ચિતી અને કોલેજના પ્રવર્તમાન તેમજ ભવિષ્યમાં આપીને અભ્યાસ કરવા સેવાઓ અને સિદ્ધાંતો સિદ્ધાંતો હું સુનિશ્ચિતી પાલન કરવા જાહેદારી કરતું છું. હું સિદ્ધાંતો અને સરનામો સાચી રીતે.

Chapman M.A. Chapman M.A.
 તારીખી સહી સિદ્ધાંતી સહી



સર પુરષોત્તમદાસ ઠાકોરદાસ સાયન્સ કોલેજ, મોડાસા.

(NAAC ACCREDITED B⁺)

કોલેજ રોડ, મોડાસા-૩૮૩૩૧૧, ડિ. જલ્પાલી.



સર્વિસના ઉપયોગ માટે

શ્રી સર્વિસ નં. _____ ઉભા / BC / ST / BAX / EBC / Handicapped
સહી : _____
વિષય : _____
પ્રવેશ સામગ્રી અને ફે / સંબંધે સહી _____ અંકાર

ADD-ON COURSE માં પ્રવેશ મેળવવા માટેનું અરજીપત્રક

આધારેથી,

આમની કોલેજમાં આગા COURSE SCPU માં ઉભા થવા માટે આવી હું અરજી કરતો છું. કોલેજમાં સમગ્ર
કેટેગરી હોઈ તે અન્ય કોલેજના વિષયે આ પ્રવેશને પાલન કરવા તેમજ કોલેજમાં અને કોલેજની બહાર વિદ્યાર્થી અનુકરણ
દું બેઠાઈ હું.

સ્થાન : ગાંધીસા.

શ્રી

સહી : _____

વિદ્યાર્થીની સહી : N.N.P.

- પુત્રો નામ : (કોલેજમાં) આર્યા નાથરામભાઈ મારાપેઠાઈ
પુત્રો નામ : (મુજબતેથી) આર્યા નીલકાંઠાઈ મારાપેઠાઈ
(આગા પરીણે જાણી)
- જન્મ સ્થાન : ગાંધીસા. તા. ૦૧/૦૧/૨૦૧૯ રા. ગાંધીસા.
- જન્મ તારીખ (આગા કે કોલેજમાં નોંધાયેલી) : ૦૬-૦૧-૨૦૧૯ રા. ગાંધીસા.
- શિક્ષા : ગાંધીસા. ગાંધીસા. (આગા જાણી તેમ જ વિષય જાણી)
- સહી : _____ રા. ગાંધીસા. : આર્યા નીલકાંઠાઈ
- વર્ગીય પુત્રો નામ અને સ્થાન : આર્યા નીલકાંઠાઈ ગાંધીસા.
- વર્ગીયે વાર્ષિક અર્થ : ૬૬૦૦૦/-
- વર્ગીય પુત્રો સંસ્થા : ગાંધીસા. ગાંધીસા. ગાંધીસા.
- વિદ્યાર્થીનું મોડાસાનું પુત્ર સંસ્થા : ગાંધીસા. ગાંધીસા. ગાંધીસા.
- ફોન નંબર : ૯૯૯૯૯૯૯૯૯૯ મોબાઈલ નં. ૯૯૯૯૯૯૯૯૯૯ જાણી નં. ૯૯૯૯૯૯૯૯૯૯
- વિદ્યાર્થીનું વર્ગ પુત્ર સંસ્થા : ગાંધીસા. ગાંધીસા. ગાંધીસા.
- આગા કોલેજ નં. ૯૯૯૯ ૯૯૯૯ ૯૯૯૯

આંદેશી પત્ર

વિદ્યાર્થીની અને કોલેજના પ્રવેશના તેમ જ અન્ય સંબંધે આવી સમગ્ર આગા વગેરે અને વિદ્યાર્થી વિષયોનું હું સુભાષી
પાલન કરવા આંદેશી અનુ હું હું વિશિષ્ટ રીતે અરજી કરવા.

આર્યા નીલકાંઠાઈ
વિદ્યાર્થીની સહી

N.N.P.
વિદ્યાર્થીની સહી



SIR P. T. SCIENCE COLLEGE, MODASA

DEPARTMENT OF BOTANY

ADD ON COURSE: SCIENTIFIC RESEARCH PAPER WRITING

EVALUATION REPORT



SR. NO.	ROLL NO.	STUDENT NAME	Attendance (20 marks)	Scientific Problem (20 marks)	Paper framework (20 marks)	Introduction and review (20 marks)	Citation (20 marks)	Total 100 Marks	Grade
1	S311	Usha Mohammedradik Gujarati	20	14	12	11	10	67	B
2	S319	Mohammadmadni Mohammadfarooqiyi Chauhan	20	12	14	12	10	68	B
3	S316	Mahesh Premdas Vaishnav	20	18	16	14	12	80	A+
4	S317	Mohammed Furkan Altaffhusen Kap	20	16	14	16	10	76	A
5	S318	Nanakuman Manjibhai Asari	20	12	15	16	10	73	A




Principal
Sir P. T. Science College
Modasa



SIR P. T. SCIENCE COLLEGE, MODASA
DEPARTMENT OF BOTANY
ADD ON COURSE: SCIENTIFIC RESEARCH PAPER WRITING
(CERTIFICATE DISTRIBUTION)



ADD ON COURSE

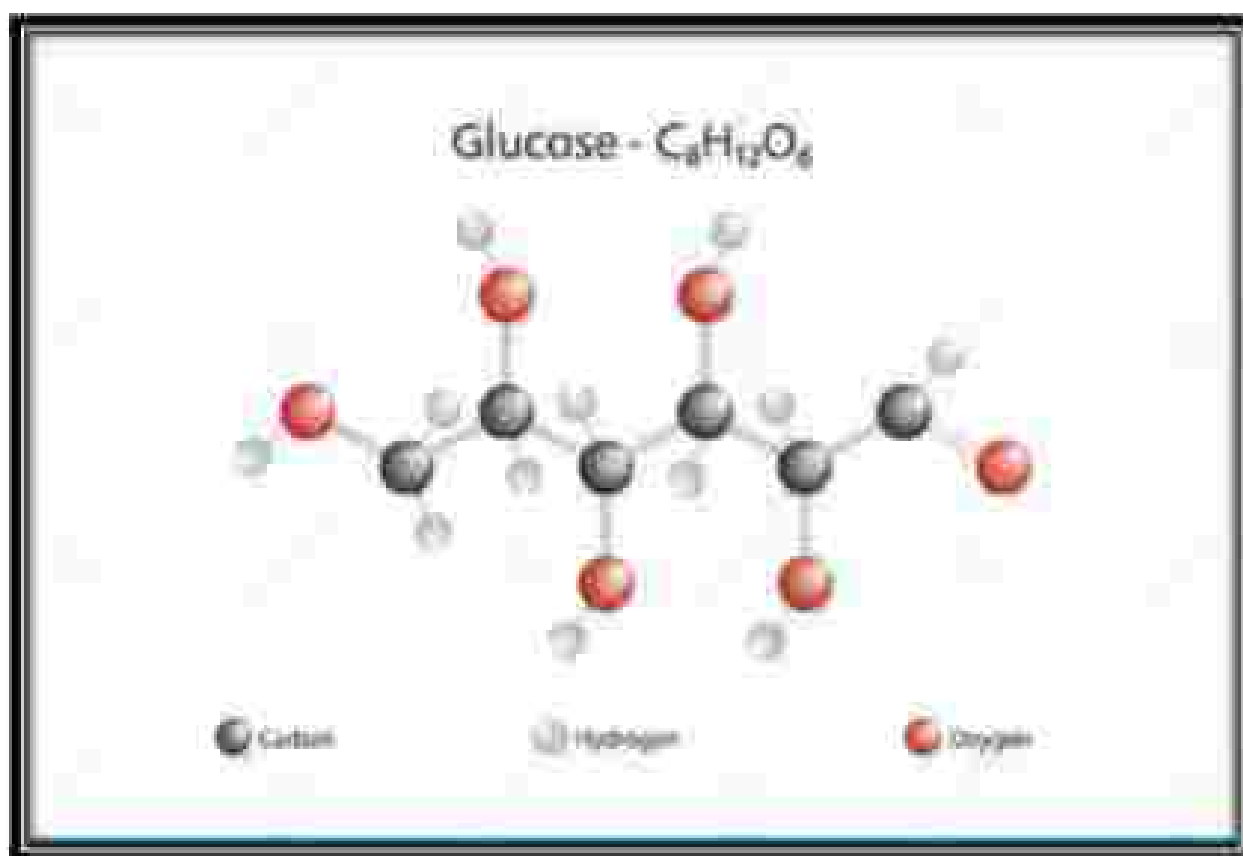
ON

**"ESTIMATION OF GLUCOSE PRESENT IN DIFFERENT
FRUITS AND IN CANDY"**

DATE: 15-02-2024 TO 16-03-2024

Duration: 30 Hours

Number of Total Students: 30



Organized By:

DEPARTMENT OF CHEMISTRY

SIR P.T.SCIENCE COLLEGE, MODASA





Course Objectives:

- Due to importance and essentiality of glucose in our body - Shows percentage of glucose in different fruits and candy – Glucose, the sugar used to make candy, is an essential nutrient for the human body – Glucose serves a primary fuel to generate energy - Estimation of glucose which is present in different fruit and candy.

SIR P.T. SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting by the following members was held on 02-03-2024 Friday at 02:00 pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting.

The attached syllabus of 30 hours "ADD ON COURSE ON: "ESTIMATION OF GLUCOSE-2024" is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P. PATEL	Principal	
2	Dr. S.D. VEDIYA	Head of the Botany Department	
3	Dr. G.L. VERARIA	IQAC Coordinator	
4	Dr. D.R. FUDANI	Head of the Chemistry Department	
5	Dr. R.H. PARMAR	Head of the Physics Department	
6	Dr. S.V. PATEL	Associate Professor	
7	Dr. M.P. BONGIWALA	PG in charge Chemistry Department	
8	Dr. S. M. DAVE	Assistant Professor	
9	Dr. J. N. PATEL	Assistant Professor	

**ADD ON COURSE ON "ESTIMATION OF GLUCOSE PRESENT IN
DIFFERENT FRUITS AND IN CANDY"**

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15/02/2024 to 16/03/2024

Course Duration: 30 Hours

Course Syllabus

Unit: 1 Glucose:

7 Hours

- 1.1 Formula – $C_6H_{12}O_6$
- 1.2 Molar –Mass - 180.56 gm/mol
- 1.3 Melting point – 145 °C
- 1.4 Heat capacity - 218.6 JK⁻¹mol⁻¹

Unit: 2 Glucose types

7 Hours

- 2.1 D – Glucose
- 2.2 L - Glucose

Unit: 3 Sugar in Fruits:

- 3.1 Coconut :- 5g Sugar
- 3.2 Mango :- 14g Sugar
- 3.3 Grapes :- 16g Sugar
- 3.4 Apple :- 10g Sugar
- 3.5 Kiwi :- 9g Sugar

8 Hours

Unit -4 Foods Highest in Glucose

- 4.1 Honey :- 7.5 g Sugar (1.9 tsp) Glucose per tsp
:- 64 calories

4.2 Fast Food :- (Hot cakes with syrup)

:- 11.2g (2.8 tsp) Glucose per/also 3- pancakes

:- 601 calories

4.3 Sugary Soft Drinks (cola) :- 20.2g (5 tsp) Glucose per 16oz bottle

:- 207 calories

Unit – 5 Experiment

5.1 Oxidation of Glucose (Original Experiment)



SIR P.T. SCIENCE COLLEGE, MODASA

ADD ON COURSE ON "ESTIMATION OF GLUCOSE PRESENT IN DIFFERENT FRUITS AND IN CANDY"

Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit 1	GLUCOSE 1.1 Formula – $C_6H_{12}O_6$ 1.2 Molar Mass – 180.56 gm/mol 1.3 Melting point – $146^\circ C$ 1.4 Heat capacity – $218.9 J K^{-1} mol^{-1}$	7 Hours															
Unit 2	Glucose types 2.1 D – Glucose 2.2 L – Glucose	7 Hours															
Unit 3	Sugar in Fruits: <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 30%;">3.1 Coconut</td> <td style="width: 30%; text-align: center;">14g Sugar</td> <td style="width: 30%; text-align: center;">6g Sugar</td> </tr> <tr> <td>3.2 Mango</td> <td style="text-align: center;">14g Sugar</td> <td style="text-align: center;">14g Sugar</td> </tr> <tr> <td>3.3 Grapes</td> <td style="text-align: center;">16g Sugar</td> <td style="text-align: center;">16g Sugar</td> </tr> <tr> <td>3.4 Apple</td> <td style="text-align: center;">10g Sugar</td> <td style="text-align: center;">10g Sugar</td> </tr> <tr> <td>3.5 Kiwi</td> <td style="text-align: center;">9g Sugar</td> <td style="text-align: center;">9g Sugar</td> </tr> </tbody> </table>	3.1 Coconut	14g Sugar	6g Sugar	3.2 Mango	14g Sugar	14g Sugar	3.3 Grapes	16g Sugar	16g Sugar	3.4 Apple	10g Sugar	10g Sugar	3.5 Kiwi	9g Sugar	9g Sugar	5 Hours
3.1 Coconut	14g Sugar	6g Sugar															
3.2 Mango	14g Sugar	14g Sugar															
3.3 Grapes	16g Sugar	16g Sugar															
3.4 Apple	10g Sugar	10g Sugar															
3.5 Kiwi	9g Sugar	9g Sugar															
Unit-4	Foods Highest in Glucose 4.1 Honey :- 7.5 g Sugar (1.9 tsp) Glucose Per tbsp :- 64 calories 4.2 Fast Food :- (Hot cakes with syrup) :- 11.2g (2.8 tsp) Glucose Per tbsp :- 3-pancakes :- 601 calories 4.3 Sugary Soft Drinks (cola) :- 20.2g (5 tsp) Glucose per 16oz bottle :- 207 calories	5 Hours															
Unit-5	Estimation	5 Hours															

**"ADD ON COURSE ON: ESTIMATION OF GLUCOSE PRESENT
IN DIFFERENT FRUITS AND IN CANDY"**

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15-02-2024 to 16-03-2024

Programme (Time-Table)

Date	Time	Activity	Name of Expert
15/02/2024	8.0 am to 10.0 am	introduction of course	Principal & Chemistry Staff
16/02/2024	8.0 am to 10.0 am	Theory Unit I	
20/02/2024	8.0 am to 10.0 am	Theory Unit I	Dr. S. M. Dave
21/02/2024	8.0 am to 10.0 am	Practical Unit I	
22/02/2024	8.0 am to 10.0 am	Theory Unit II	Dr. D.R. Fudani
26/02/2024	8.0 am to 10.0 am	Theory Unit II	Dr. J.N. Patel
27/02/2024	8.0 am to 10.0 am	Theory Unit II	Dr. S.V. Patel
28/02/2024	8.0 am to 10.0 am	Practical Unit II	Dr. S. M. Dave
01/03/2024	8.0 am to 10.0 am	Theory Unit III	Dr. S. V. Patel
04/03/2024	8.0 am to 10.0 am	Theory Unit III	Dr. M.P. Gongiwala
05/03/2024	8.0 am to 10.0 am	Theory Unit III	Dr. J. N. Patel
07/03/2024	8.0 am to 10.0 am	Practical Unit III	Dr. D.R. Fudani
09/03/2024	8.0 am to 10.0 am	Practical Unit III	Dr. T.M. Patel
11/03/2024	8.0 am to 10.0 am	Practical Unit III	
13/03/2024	8.0 am to 10.0 am	Practical Unit III	Dr. S. M. Dave
16/03/2024	8.0 am to 10.0 am	Practical Unit III	Dr. S. V. Patel



Reference Books:

1. ESTIMATION OF GLUCOSE BY DR. AZAD ALAM SIDDIQUI.
2. DETERMINATION OF GLUCOSE BY D. JIM LIVINGSTON.
3. REGULATION OF BLOOD GLUCOSE CONCENTRATION BY R.C GUPTA.
4. PREDICTION METHODS FOR BLOOD GLUCOSE CONCENTRATION BY HARALD KIRCHSTEIGER JOHN BAGTERP JORGENSEN.

Organized by Department of Chemistry
SIR P.T.SCIENCE COLLEGE, MODASA

Date: 15/02/2024 to 16/03/2024

Result Sheet

B.Sc Sem 5

No.	Roll No.	Student Name	Obtained Mark (30)	Grade
1	1101	AADITHA L PATEL	26	A
2	1102	ABHILASHA V. CHILKANI	24	B
3	1104	AJAY S DAMOR	24	B
4	1106	AKSHITABEN M. PATEL	25	B
5	1107	ANISHA L. JHARGIA	24	B
6	1109	ANIKETINH Y. RAYAT	24	B
7	1110	ANUVA. POT	25	B
8	1112	BHAYIN J. PARMAR	23	B
9	1115	CHAERIK. PATEL	25	B
10	1114	CHARNESH P. KHANT	25	B
11	1116	DIYIA D. PARMAR	24	B
12	1117	GOP. A. PATEL	24	B
13	1118	HANU D. PATEL	28	A
14	1119	HARVIR. PATEL	24	B
15	1120	JIGNESH A. DAMOR	25	B
16	1125	KAVITA M. DALA	25	A
17	1123	MEHLI B. PATEL	24	B
18	1126	NIMOPARUNYAK J. CHALHAN	25	B
19	1137	PAUL P. MAMR	25	B
20	1138	PRACHIN M. CHAUDHARI	28	A
21	1140	RIDDHI A. PANCHAL	25	B
22	1141	RINAL C. PATEL	28	A
23	1143	ROHINI M. DEYDA	26	A
24	1145	RUTVI M. PATEL	25	B
25	1148	SAGAR M. RAJSPATI	24	A
26	1149	SWETA J. PATEL	24	B
27	1150	TARAPRUMBARU S. MANSURI	28	A
28	1152	VEJUNDHANAR A. DARA	23	B
29	1153	YRUSHALI A. CHAUDHARI	23	B
30	1156	KRUPA LTHAKOR	24	B

Note: All 30 Students are successfully completed the course and get certificate.



ಕರ್ನಾಟಕ ಪುಸ್ತಕಮಹಾಡಿ ಹಾಗೂ ಸಾಹಿತ್ಯ ಸಂಪನ್ಮೂಲ ಡಿವೀನ್, ಬೆಂಗಳೂರು

(KARNATAKA SAHITYA SAMPANMULU DIVISION)

ಬೆಂಗಳೂರು, ಕರ್ನಾಟಕ ರಾಜ್ಯ, ಭಾರತ

ಸಂಸ್ಥಾನ ಕಟ್ಟಡ

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____
 ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____



ಪುಸ್ತಕಮಹಾಡಿ ಹಾಗೂ ಸಾಹಿತ್ಯ ಸಂಪನ್ಮೂಲ ಡಿವೀನ್

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____
 ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____

1. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
2. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
3. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
4. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
5. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
6. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
7. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
8. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
9. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
10. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
11. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
12. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
13. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
14. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
15. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
16. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
17. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
18. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
19. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____
20. ಪುಸ್ತಕದ ವಿಷಯ: _____
 ಇತರ ವಿವರಣೆ: _____

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____

ಇಲ್ಲಿಗೆ ಬಂದ ದಿನಾಂಕ: _____
 ಸಂಖ್ಯೆ: _____



**ADD-ON COURSE ON "ESTIMATION OF GLUCOSE PRESENT IN
DIFFERENT FRUITS AND IN CANDY"**

ORGANISE BY DEPARTEMENT OF CHEMISTRY

DATE :- 15/02/2024 TO 16/03/2024

SIR P. T. SCIENCE COLLEGE ,MODASA

ATTENDANCE SHEET (THEORY)

Sl. No.	Name of Student	Roll No.	15/02/2024	16/02/2024	17/02/2024	18/02/2024	19/02/2024	20/02/2024	21/02/2024	22/02/2024	23/02/2024	24/02/2024	25/02/2024	26/02/2024	27/02/2024	28/02/2024
1	Arushi Chaudhary	20240101														
2	Arushi Chaudhary	20240102														
3	Arushi Chaudhary	20240103														
4	Arushi Chaudhary	20240104														
5	Arushi Chaudhary	20240105														
6	Arushi Chaudhary	20240106														
7	Arushi Chaudhary	20240107														
8	Arushi Chaudhary	20240108														
9	Arushi Chaudhary	20240109														
10	Arushi Chaudhary	20240110														
11	Arushi Chaudhary	20240111														
12	Arushi Chaudhary	20240112														
13	Arushi Chaudhary	20240113														
14	Arushi Chaudhary	20240114														
15	Arushi Chaudhary	20240115														
16	Arushi Chaudhary	20240116														
17	Arushi Chaudhary	20240117														
18	Arushi Chaudhary	20240118														
19	Arushi Chaudhary	20240119														
20	Arushi Chaudhary	20240120														
21	Arushi Chaudhary	20240121														
22	Arushi Chaudhary	20240122														
23	Arushi Chaudhary	20240123														
24	Arushi Chaudhary	20240124														
25	Arushi Chaudhary	20240125														
26	Arushi Chaudhary	20240126														
27	Arushi Chaudhary	20240127														
28	Arushi Chaudhary	20240128														
29	Arushi Chaudhary	20240129														
30	Arushi Chaudhary	20240130														
31	Arushi Chaudhary	20240131														
32	Arushi Chaudhary	20240201														
33	Arushi Chaudhary	20240202														
34	Arushi Chaudhary	20240203														
35	Arushi Chaudhary	20240204														
36	Arushi Chaudhary	20240205														
37	Arushi Chaudhary	20240206														
38	Arushi Chaudhary	20240207														
39	Arushi Chaudhary	20240208														
40	Arushi Chaudhary	20240209														
41	Arushi Chaudhary	20240210														
42	Arushi Chaudhary	20240211														
43	Arushi Chaudhary	20240212														
44	Arushi Chaudhary	20240213														
45	Arushi Chaudhary	20240214														
46	Arushi Chaudhary	20240215														
47	Arushi Chaudhary	20240216														
48	Arushi Chaudhary	20240217														
49	Arushi Chaudhary	20240218														
50	Arushi Chaudhary	20240219														
51	Arushi Chaudhary	20240220														
52	Arushi Chaudhary	20240221														
53	Arushi Chaudhary	20240222														
54	Arushi Chaudhary	20240223														
55	Arushi Chaudhary	20240224														
56	Arushi Chaudhary	20240225														
57	Arushi Chaudhary	20240226														
58	Arushi Chaudhary	20240227														
59	Arushi Chaudhary	20240228														
60	Arushi Chaudhary	20240229														
61	Arushi Chaudhary	20240301														
62	Arushi Chaudhary	20240302														
63	Arushi Chaudhary	20240303														
64	Arushi Chaudhary	20240304														
65	Arushi Chaudhary	20240305														
66	Arushi Chaudhary	20240306														
67	Arushi Chaudhary	20240307														
68	Arushi Chaudhary	20240308														
69	Arushi Chaudhary	20240309														
70	Arushi Chaudhary	20240310														
71	Arushi Chaudhary	20240311														
72	Arushi Chaudhary	20240312														
73	Arushi Chaudhary	20240313														
74	Arushi Chaudhary	20240314														
75	Arushi Chaudhary	20240315														
76	Arushi Chaudhary	20240316														
77	Arushi Chaudhary	20240317														
78	Arushi Chaudhary	20240318														
79	Arushi Chaudhary	20240319														
80	Arushi Chaudhary	20240320														
81	Arushi Chaudhary	20240321														
82	Arushi Chaudhary	20240322														
83	Arushi Chaudhary	20240323														
84	Arushi Chaudhary	20240324														
85	Arushi Chaudhary	20240325														
86	Arushi Chaudhary	20240326														
87	Arushi Chaudhary	20240327														
88	Arushi Chaudhary	20240328														
89	Arushi Chaudhary	20240329														
90	Arushi Chaudhary	20240330														
91	Arushi Chaudhary	20240331														

**ADD ON COURSE ON "ESTIMATION OF GLUCOSE PRESENT IN
DIFFERENT FRUITS AND IN CANDY"**

ORGANISE BY DEPARTEMENT OF CHEMISTRY

DATE :- 15/02/2024 TO 16/03/2024

SIR P. T. SCIENCE COLLEGE ,MODASA

ATTENDANCE SHEET (PRACTICAL)

ADD ON COURSE ON ESTIMATION OF SUCROSE PRESENT IN DIFFERENT FRUITS AND IN CANDY

ORGANISE BY DEPARTMENT OF CHEMISTRY

DATE - 17/05/2024

SIR P. T. SCIENCE COLLEGE, MADASA

TIME - 1 HOUR

FINAL TEST

MARKS - 30

(5)

14 43 2024

Q.1. Write the chemical reaction for the estimation of sucrose in candy.

Q.2. Write the chemical reaction for the estimation of sucrose in fruit.

Q.3. Write the chemical reaction for the estimation of sucrose in fruit.

Q.4. Write the chemical reaction for the estimation of sucrose in fruit.

Q.5. Write the chemical reaction for the estimation of sucrose in fruit.

Q.6. Write the chemical reaction for the estimation of sucrose in fruit.

Q.7. Write the chemical reaction for the estimation of sucrose in fruit.

Q.8. Write the chemical reaction for the estimation of sucrose in fruit.

Q.9. Write the chemical reaction for the estimation of sucrose in fruit.

Q.10. Write the chemical reaction for the estimation of sucrose in fruit.

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by

THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan

Accredited with 'B++' Grade (289 CGPA) by NAAC in the 2nd Cycle

Status awarded by UGC AND

'A' Grade (CGPA 3.04) in AAA by KJG (Govt. of Gujarat)

ADD ON COURSE

"ESTIMATION OF GLUCOSE IN DIFFERENT FRUITS AND CANDY"

Organized by Department of Chemistry

Certificate

This is to certify that _____

Class _____, Semester _____, Roll No. _____ has successfully completed 30 hours Add on Course **"ESTIMATION OF GLUCOSE IN DIFFERENT FRUITS AND CANDY"** which was organized by Department of Chemistry from 04-03-2024 to 23-03-2024 at college campus.

Dr. M.P. Gargiwala

Dr. D.R.FUDANI

Dr. K.P.PATEL

Course Co-ordinator

HOD, Dept. of Chemistry

Principal

Date:



**"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN
PHYSICAL CHEMISTRY"-2021**

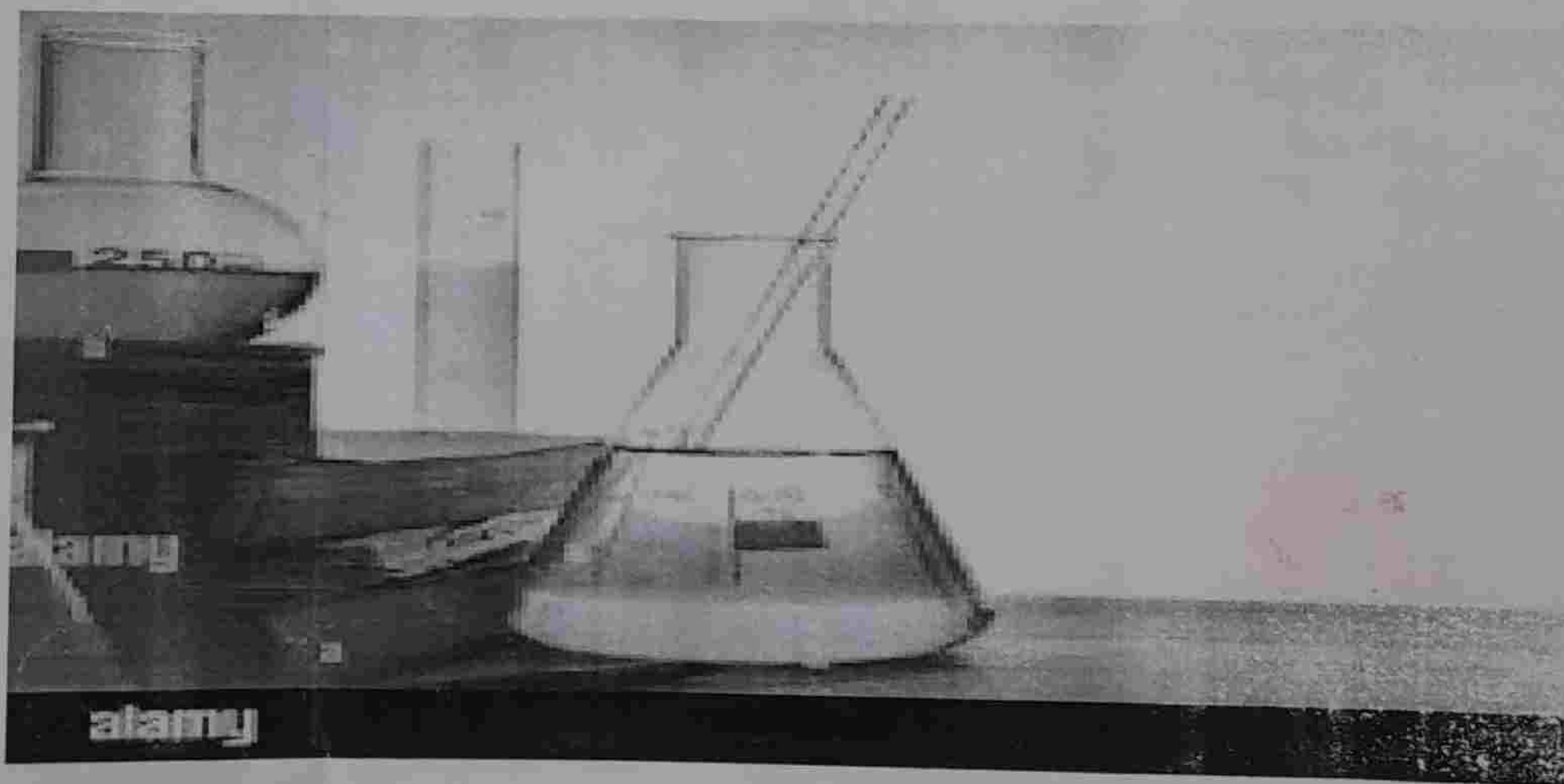
**Organized by
Department of Chemistry**

SIR P.T.SCIENCE COLLEGE,MODASA

Batch – I

**Duration: 30 Hours
Number of total students: Maximum 30**

Date: 06-09-2021 TO 25-09-2021




**Department of Chemistry
SIR P.T.SCIENCE COLLEGE,MODASA**

[Signature]
**Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvali.**

Course Objectives :

Due to importance and essentiality of Physical Chemistry in Each branch of Sciences – Shows usage of subject fundamental – principle with practical knowledge to design experiments, analyze and interpret data so as to reach to valid conclusions. It will be more useful for students who are going to build their carrier in Chemical and pharmaceutical industries.





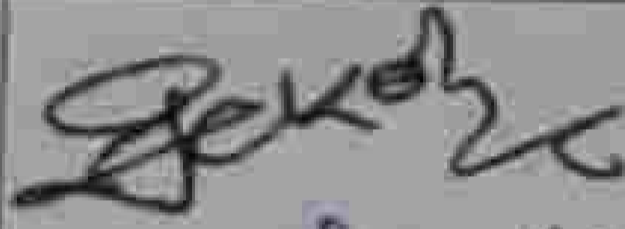
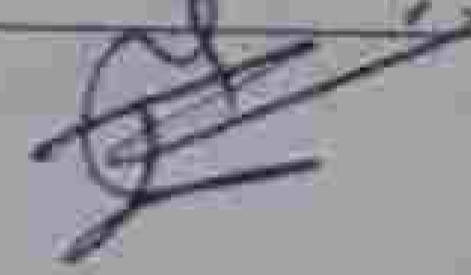


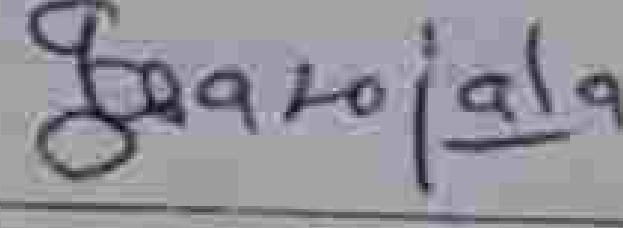

Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

SIR P.T.SCIENCE COLLEGE,MODASA


Minutes

A meeting of the committee consisting by the following members was held on 02-08-2021 Monday at 02:00 pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting.

The attached syllabus of 30 hours "ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021 is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. S.V.PATEL	Associate Professor	
7	Dr. M.P.GONGIWALA	PG incharge Chemistry Department	




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

**APPROVED SYLLABUS OF ADD ON COURSE ON
INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021**

**Prepared by
Department of Chemistry**

**Course Co-Ordinator : Dr. S.V.Patel
Joint Co-Ordinator : Dr. M.P.Gongiwala
Year 2021-22
SIR P.T.SCIENCE COLLEGE, MODASA.
Date: 06-09-2021 TO 25-09-2021**

Syllabus (30 Hours)

Unit: I Calibration

6 hours

Why Calibration require? Calibration of Burette, Pipette, Measuring flask. Calibration of PH meter, Potentiometer, Conductometer, Colourimeter.

Unit: II pH metry

6 hours

Principle of pH meter, Definition, measurement, electrode types, electrode maintenance, Buffers, calibration, pH metric titrations, Graphical methods including plot of selecting end point.

Unit: III Conductometry

6 hours

Electrolytic Conductance: Strong electrolytes, weak electrolytes, Measurement of electrolytic conductance, Types of Conductometric titrations. Graphical methods including plot of selecting end point. Experiment.

Unit: IV Potentiometric

6 hours

Concept of potentiometric, Types of electrode, Types of potentiometric titration. How to calibrate potentiometer, how to make salt bridge, Type of titration, graphical methods including plot of selecting end point. Experiment.

Unit: V Colourimetry

6 hours

Lambert Beer's law, Calibration of given colorimeter, Graphical methods including plot of selecting end point. Determination of amount of NO_2^- , Ni^{+2} , PO_4^{-3} by colorimetric method. Experiment.

SIR P.T.SCIENCE COLLEGE,MODASA


Syllabus of "ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

Unit : 1	Calibration Why Calibration require? Calibration of Burette, Pipette, Measuring flask. Calibration of PH meter, Potentiometer, Conductometer, Colorimeter.	2 Hours
	Practicals – To Calibration the burette, measuring flask & Pipette.	4 Hours
Unit : 2	pH Metry Principle of pH meter, Definition, measurement, electrode types, electrode maintenance, Buffers, calibration, pH metric titrations, Graphical methods including plot of selecting end point.	2 Hours
	Practicals – To determine the strength of strong and weak acids in given mixture using a pH meter (1) HCl+CH ₃ COOH (2) NaOH+NH ₄ OH.	4 Hours
Unit : 3	Conductometry Electrolytic Conductance: Strong & weak electrolytes, Measurement of electrolytic conductance, Types of Conductometric titrations. Graphical methods including plot of selecting end point. Experiment.	2 Hours
	Practicals – (1) To determine the solubility product and solubility of sparingly soluble salts (PbSO ₄ , BaSO ₄) by conduct meter (2) To determine the strength of strong and weak acids in a given mixture using a Conductometer. (HCl+NaOH).	4 Hours
Unit : 4	Potentiometry Concept of potentiometric, Types of electrode, Types of potentiometric titration. How to calibrate potentiometer, how to make salt bridge, Type of titration, graphical methods including plot of selecting end point. Experiment.	2 Hours
	Practicals – 1. To determine of strength of halides in given solution using potentiometer. 2. Redox titration by Potentiometry.	4 Hours
Unit : 5	Colorimery Lambert Beer's law, Calibration of given colorimeter, Graphical methods including plot of selecting end point. Determination of amount of NO ₂ ⁻ , Ni ⁺² , PO ₄ ⁻³ by colorimetric method. Experiment.	2 Hours
	Practicals – To determine the Concentration of unknown NO ₂ ⁻ , Ni ⁺² , PO ₄ ⁻³ by colorimetric method.	4 Hours

Reference Books:

1. Physical Advanced Chemistry Practical by J.B. yadav
2. Physical chemistry practical by Pragatiprakashan
3. Practical Physical Chemistry by B. Vishwanathan, P.S. Raghavan
4. Physical Chemistry Practical BySaroj Kr Mairy, Naba Kr Ghosh
5. Experiments in Physical Chemistry by P.H.Parsaniya.




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE,MODASA


Date: 06-09-2021 TO 25-09-2021

Programme

Date	Time	Activity	Name of Expert
06/09/2021	8.0 am to 10.0 am	Introduction of course	Principal & Chemistry Staff
07/09/2021	8.0 am to 10.0 am	Theory Unit. I	Dr.S.V.Patel. Dr.D.R.Fudani
08/09/2021	8.0 am to 10.0 am	Practical Unit I	Dr.S.V.Patel.
09/09/2021	8.0 am to 10.0 am	Practical Unit I	Dr.D.R.Fudani
10/09/2021	8.0 am to 10.0 am	Theory Unit. II	Dr.S.V.Patel. Dr.D.R.Fudani
13/09/2021	8.0 am to 10.0 am	Practical Unit II	Dr.S.V.Patel.
14/09/2021	8.0 am to 10.0 am	Practical Unit II	Dr.D.R.Fudani
15/09/2021	8.0 am to 10.0 am	Theory Unit. III	Dr.M.P.Gongiwala Dr.J.N.Patel
16/09/2021	8.0 am to 10.0 am	Practical Unit III	Dr.M.P.Gongiwala
17/09/2021	8.0 am to 10.0 am	Practical Unit III	Dr.J.N.Patel
20/09/2021	8.0 am to 10.0 am	Theory Unit. IV	Dr.S.M.Dave Dr.T.M.Patel
21/09/2021	8.0 am to 10.0 am	Practical Unit IV	Dr.S.M.Dave
22/09/2021	8.0 am to 10.0 am	Practical Unit IV	Dr.T.M.Patel
23/09/2021	8.0 am to 10.0 am	Theory Unit. V	Dr.G.N.Bariya Prof.Y.P.Valvi
24/09/2021	8.0 am to 10.0 am	Practical Unit V	Dr.G.N.Bariya
25/09/2021	8.0 am to 10.0 am	Practical Unit V	Dr.G.N.Bariya

Note: After successfully completion of course certificate will be provide to each student online mode.




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvali

ADD ON COURSE ON INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021
Organized by Department of Chemistry
SIR P.T.SCIENCE COLLEGE, MODASA
Date: 06-09-2021 TO 25-09-2021


Registration Form

1. Name of Student: Bhoi Janakben Prakashbhai
2. Address: AT & Post - Timtoi
3. E-mail ID: janakbhoi2001@gmail.com
4. Mobile Number: 7862926526
5. Semester of Study: BSc sem - V
6. Subject: chemistry
7. Roll No :
8. Academic Year : 2021 - 22
9. Enrollment No : BSC0081810885
10. Average of SGPA of all previous semesters : 7.60

Date:
Place: Modasa

Signature of Student:
J.P. Bhoi




Principal
Sir P. T. Science College
Modasa-383315, Dist. Anjali

"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

Organized by Department of Chemistry


SIR P.T.SCIENCE COLLEGE, MODASA

Date: 06-09-2021 TO 25-09-2021

Attendance Sheet (Theory)

Reg. No	Name	7-9-21	10-9-21	15-9-21	20-9-21	21-9-21	22-9-21	23-9-21	24-9-21	25-9-21
1	Bhoi Janak B.	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi
2	Chaudhary Achal A.	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A
3	Khant Kiran A.	KAA	KAA	KAA	Ab.	KAA	Ab.	KAA	KAA	KAA
4	Parmar Dinesh B.	DBP	DBP	Ab.	Ab.	DBP	DBP	DBP	DBP	DBP
5	Patel Brijesh S.	BSP	BSP	BSP	BSP	BSP	BSP	BSP	BSP	BSP
6	Patel Disha S.	Disha	Disha	Disha	Disha	Disha	Disha	Disha	Disha	Disha
7	Patel Hitanshee S.	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel
8	Patel Mansi R.	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi
9	Patel Mitharth N.	mnp	mnp	mnp	mnp	Ab.	mnp	mnp	mnp	Ab.
10	Patel Rahul G.	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel	R.G.Patel
11	Patel Umang S.	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P
12	Rajpal Pruthviraj V.	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL	P.V.RAJPAL
13	Rathod Jay J.	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod
14	Sharma Yachna B.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.
15	Upadhyay Anurag S.	ASU	ASU	ASU	Ab.	ASU	ASU	ASU	ASU	Ab.
16	Valand Ritu B.	R.B.	R.B.	R.B.	R.B.	R.B.	R.B.	R.B.	R.B.	R.B.
17	Vyas Mahimn A.	M.A.	M.A.	M.A.	M.A.	M.A.	M.A.	M.A.	M.A.	M.A.
18	Zala Saurav R.	SZR	SZR	SZR	SZR	SZR	Ab.	SZR	SZR	Ab.
19										
20										
21										
22										
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24										
25										
26										
27										
28										
29										
30										
	Signature of Teacher →→ CO-ordinator	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>




 Principal
Sir P. T. Science College
 Modasa-383315, Dist. Arvaill.

"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 06-09-2021 TO 25-09-2021

Attendance Sheet (Practical)

Reg. No	Name	6-9-21	7-9-21	8-9-21	9-9-21	13-9-21	14-9-21	15-9-21	16-9-21	17-9-21
1	Bhoi Janak B.	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi	J.P.Bhoi
2	Chaudhary Achal A.	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A	Achal A
3	Khant Kiran A.	KAH	KAH	KAH	Ab	KAH	Ab	KAH	KAH	KAH
4	Parmar Dinesh B.	DBP	DBP	Ab	Ab	DBP	DBP	DBP	DBP	DBP
5	Patel Brijesh S.	BSP	BSP	BSP	BSP	BSP	BSP	BSP	BSP	BSP
6	Patel Disha S.	Dishu	Dishu	Dishu	Dishu	Dishu	Dishu	Dishu	Dishu	Dishu
7	Patel Hitanshee S.	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel	H.S.Patel
8	Patel Mansi R.	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi	Mansi
9	Patel Mitharth N.	mmp	mmp	mmp	mmp	Ab	mmp	mmp	mmp	Ab
10	Patel Rahul G.	Rpatel	Rpatel	Rpatel	Rpatel	Rpatel	Rpatel	Rpatel	Rpatel	Rpatel
11	Patel Umang S.	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P	U.S.P
12	Rajpal Pruthviraj V.	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL	R.V.RAJPAL
13	Rathod Jay J.	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod	J.Rathod
14	Sharma Yachna B.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.	Y.B.S.
15	Upadhyay Anurag S.	ASU	ASU	ASU	Ab	ASU	ASU	ASU	ASU	Ab
16	Valand Ritu B.	Ritu	Ritu	Ritu	Ritu	Ritu	Ritu	Ritu	Ritu	Ritu
17	Vyas Mahimn A.	M.Vyas	M.Vyas	M.Vyas	M.Vyas	M.Vyas	M.Vyas	M.Vyas	M.Vyas	M.Vyas
18	Zala Saurav R.	SRS	SRS	SRS	SRS	SRS	Ab	SRS	SRS	Ab
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
	Signature of Teacher → Co-ordinator	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]



Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvali

"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

SIR P.T SCIENCE COLLEGE, MODASA

Final Test

Time: 30 Min.

Date: 25/09/2021

Marks: 30

Name of Student's: Bhoi Janakben Prakashbhai

Registration No: 01

1. Give unit of density. gm/cm³ ✓
2. What is normal density of water? 1.0 gm/cm³ ✓
3. Give formula for pH determination? $\text{pH} = -\log_{10} [\text{H}_3\text{O}^+]$
4. Which solution is used to calibrate pH meter? Buffere solⁿ ✓
5. Which electrodes are used in pH measurement? Glass ele. & calomel ele. ✓
6. What is the unit of EMF? volt ✓
7. Give full form of EMF? electro motive force ✓
8. Which reference electrode is used in potentiometric titration? Glass ele. ✓
9. Give any one example of indicator electrode? Pt ele., silver ele. ✓
10. Which solution is used in salt bridge? KCl ✓
11. Which electrode is used to calibrate potentiometer? std. weston cell ✓
12. What is the unit of conductance? MHO ✓
13. Give formula for determination of cell constant. $\text{cond} = \frac{K}{l}$ ✓
14. Give any two examples of strong base. NH_4OH , KOH ✓
15. Give any two examples of weak base. Na_2CO_3 , NH_4OH ✓
16. H_3PO_4 is weak or strong acid? Strong acid X
17. Who has given pH scale? Sorenson X
18. Which solutions are used to determine cell constant? 0.1, 0.01, 0.02 N KCl ✓
19. The type of titration between FeSO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$ is complexometry titraⁿ ✓
20. X N NaCl against 0.1 N AgNO_3 is which type of titration? precipitate titⁿ ✓



25.5 =

26/35

5/1 V P R G

"ADD ON COURSE ON: INSTRUMENTATION TECHNIQUES IN PHYSICAL CHEMISTRY"-2021

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 06-09-2021 TO 25-09-2021

Final Test Result Total Marks:30


Reg. No	Name	Marks Obtained	Grade
1	Bhoi Janak B.	26	A
2	Chaudhary Achal A.	24	B
3	Khant Kiran A.	28	A
4	Parmar Dinesh B.	26	A
5	Patel Brijesh S.	27	A
6	Patel Disha S.	29	A
7	Patel Hitanshee S.	29	A
8	Patel Mansi R.	21	B
9	Patel Mitharth N.	28	A
10	Patel Rahul G.	26	A
11	Patel Umang S.	26	A
12	Rajpal Pruthviraj V.	21	B
13	Rathod Jay J.	18	C
14	Sharma Yachna B.	21	B
15	Upadhyay Anurag S.	Ab	F
16	Valand Ritu B.	21	B
17	Vyas Mahimn A.	26	A
18	Zala Saurav R.	21	B
	Signature of Teacher →→		

Obtained Marks out of 30	Grade
25-30	A
20-24	B
15-19	C
≥ 14	F

Summary of Result: Out of 18 students 17 students have completed successfully this

Add on Course




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvaik.

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan

ADD ON COURSE

Organized by Chemistry Department

"Instrumentation Techniques in
Physical Chemistry"-2021

Certificate

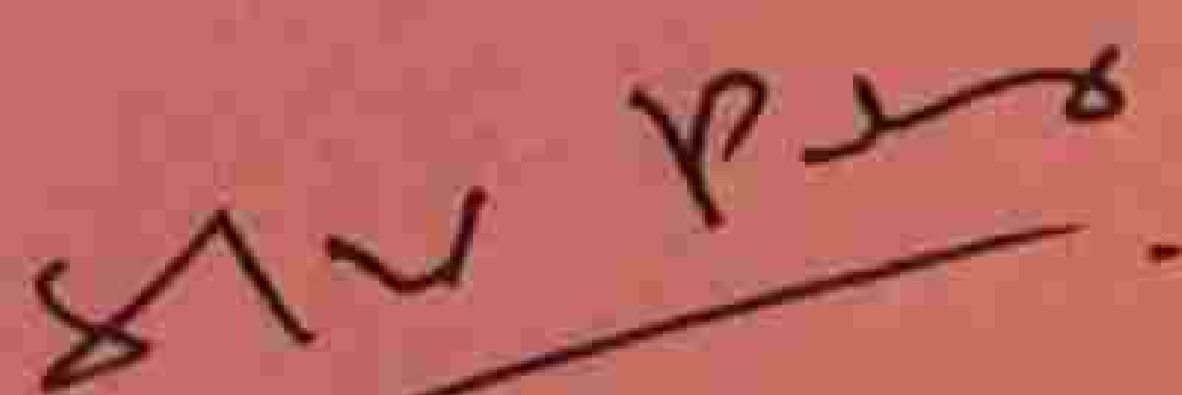
This is to certify that Mr./Miss _____


Class B.Sc. Semester-V, Roll No. _____ has successfully completed 30 Hours


Add on Course "Instrumentation Techniques in Physical Chemistry"-

2021 which was organized by Department of Chemistry from 06-09-2021 to

25-09-2021 at Sir P.T.Science college, Modasa.


Dr. S.V. PATEL
Course Co-Ordinator


HEAD
CHEMISTRY DEPARTMENT
SCIENCE COLLEGE MODASA
Dr. D.R. FUDANI
HOD, Dept. of Chemistry


Dr. K.P. PATEL
Principal

Date: 25/09/2021

Place: MODASA



dt. 23/01/2024

Add On Course On 'Instrumentation

Techniques in physical chemistry" - 2024

Final Test

30 marks



A 11 or course on Instrumentation
Techniques in Physical Chemistry - 2020
Date: 24/11/2020





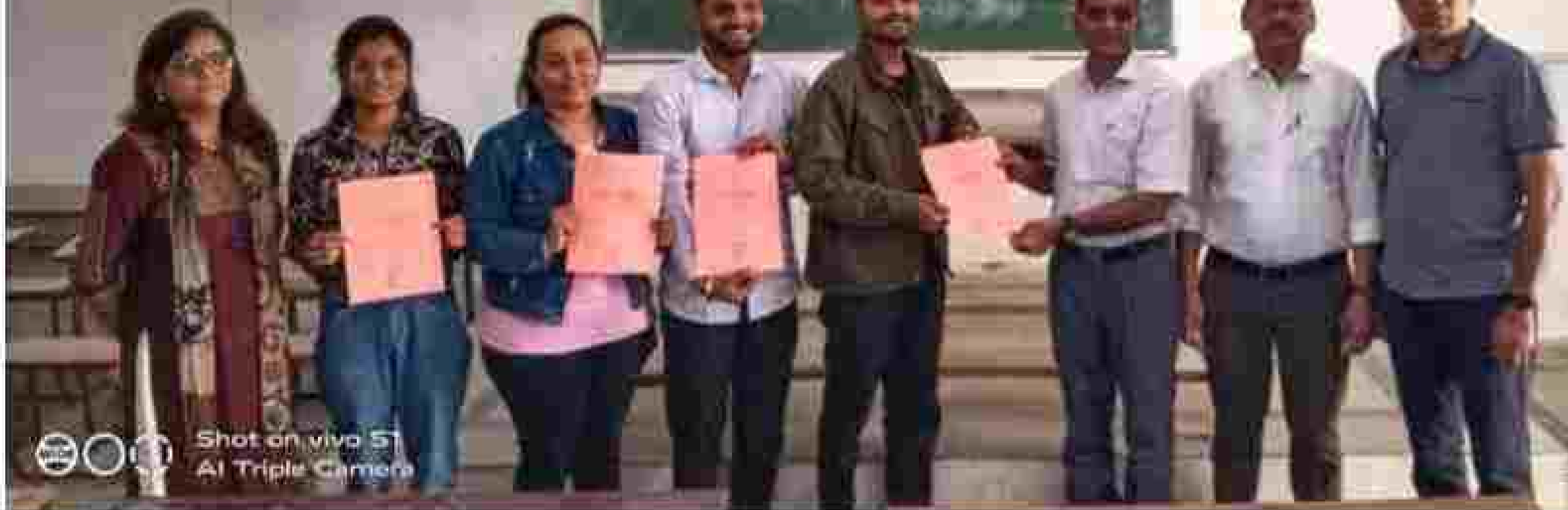
Add On Course on Instrumentation
Techniques in Physical Chemistry - 2024
Final Test 3 months

18/11/24

18/11/24 BAFU



Certificate
Distribution
A.I. & ML Course



Shot on vivo 5T
AI Triple Camera

2024-03-15 17:05

Certificate
Distribution
AI & ML Course



Shot on vivo S1
AI Triple Camera



ADD ON COURSE

ON

"MANUFACTURING OF SOAP & DETERGENT"

DATE: 01-01-2024 TO 20-01-2024

Duration: 30 Hours

Number of Total Students: 34

Handmade
SOAP MAKING



HOW TO MAKE NATURE'S SOAP THE Natural and Organic Way

Organized By:

DEPARTMENT OF CHEMISTRY

SIR P. T. SCIENCE COLLEGE, MODASA

Course Objectives:

- Discover the start-to-finish process of soap and detergent manufacturing with explanations of and machinery needed for metering, saponification, cooling, washing, neutralizing, drying, and finishing.
- Understand soap products' applications in the personal, fabric, and home care industries. And also understanding of oil, fat, and their sources in India.
- It will be more useful for students who are going to earn money by small business at home.

SIR P.T. SCIENCE COLLEGE, MODASA



Minutes

A meeting of the committee consisting by the following members was held on 15-12-2023 Friday at 02.00 pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting:

The attached syllabus of 30 hours "ADD ON COURSE ON: "Manufacturing of Soap & Detergent" -2024 is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P. PATEL	Principal	
2	Dr. S.D. VEDIYA	Head of the Botany Department	
3	Dr. G.L. VEKARIA	IQAC Coordinator	
4	Dr. D.K. FUDANI	Head of the Chemistry Department	
5	Dr. R.H. PARMAR	Head of the Physics Department	
6	Dr. S.V. PATEL	Associate Professor	
7	Dr. N.P. GONGIWALA	In-charge Chemistry Department	
8	Dr. S. M. DAVE	Associate Professor	
9	Dr. J.N. PATEL	Assistant Professor	
10	Dr. T.M. PATEL	Assistant Professor	
11	Prof. Y. P. VALVI	Assistant Professor	
12	Dr. G. N. BABA	Assistant Professor	

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01/01/2024 to 20/01/2024

Course Duration: 30 Hours

Course Syllabus

Unit: 1 Introduction to oil and fats:

4 Hours

1.1 Classification, structure and sources of oil and fats

1.2 Natural sources of oils and fats in India

Unit: 2 Soaps:

6 Hours

2.1 Introduction to soap, synthetic detergents, raw materials and its selection

2.2 Principles of soap making and chemistry of soap

2.3 Boiling, saponification process

Unit: 3 Detergents:

6 Hours

3.1 Types of detergents, classification of detergents (anionic, non-ionic, Amphoteric), biodegradability

3.2 Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites etc.

Unit: 4 Practical:

14 Hours

4.1 Determination of physico-chemical characteristics of oil and fats:

- I. Moisture content
- II. Acid value
- III. Iodine value
- IV. Saponification reaction and Saponification value

4.2 Manufacture of liquid soap and laundry soap (detergent)



**APPROVED SYLLABUS FOR ADD ON COURSE ON
"Manufacturing of Soap & Detergent" -2024**

Prepared by

Department of Chemistry

Course Co-Ordinator: Dr. G.N.Barla

Year: 2023-24

Sir P. T. Science College, Modasa

Date: 01-01-2024 to 20-01-2024



Course Syllabus [30 Hours]

Unit: 1 Introduction to oil and fats: 4 Hours

1.1 Classification, structure and sources of oil and fats

1.2 Natural sources of oils and fats in India

Unit: 2 Soaps: 6 Hours

2.1 Introduction to soap, synthetic detergents, raw materials and its selection

2.2 Principles of soap-making and chemistry of soap

2.3 Boiling, saponification process

Unit: 3 Detergents: 6 Hours

3.1 Types of detergents, classification of detergents (anionic, non-ionic, Amphoteric), biodegradability

3.2 Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites etc.

Unit: 4 Practical: 14 Hours

4.1 Determination of physico-chemical characteristics of oil and fats

- i. Moisture content
- ii. Acid value
- iii. Iodine value
- iv. Saponification reaction and Saponification value

4.2 Manufacture of liquid soap and laundry soap (detergent)



SIR P.T.SCIENCE COLLEGE, MODASA

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit 1	1.1 Classification, structure and sources of oil and fats 1.2 Natural sources of oils and fats in India	4 Hours
Unit 2	2.1 Introduction to soap, synthetic detergents, raw materials and its selection 2.2 Principles of soap making and chemistry of soap 2.3 Boiling, saponification process	6 Hours
Unit 3	3.1 Types of detergents, classification of detergents (anionic, non-ionic, Amphoteric), biodegradability 3.2 Inorganic compounds of detergents (Builder & other additives, phosphates, silicates, zeolites etc.	6 Hours
Unit 4	4.1 Determination of physico-chemical characteristics of oil and fats I. Find out the moisture value in different oil II. To determine acid value of given oil sample III. To determine iodine value in oils and fats IV. To determine saponification value in given oil.	8 Hours
	4.2 Manufacture of liquid soap and laundry soap (detergent) a. Preparation of soap base b. Preparation of different type of soap from soap base c. Preparation of liquid detergent	6 Hours

"ADD ON COURSE ON: Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01-01-2024 to 20-01-2024



Programme (Time-Table)

Date	Time	Activity	Name of Expert
01/01/2024	8.0 am to 10.0 am	Introduction of course-unit I	Principal & Chemistry Staff
02/01/2024	8.0 am to 10.0 am	Theory Unit I	Dr. J.N. Patel
03/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. S.V. Patel
04/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. G.N. Baria
05/01/2024	8.0 am to 10.0 am	Theory Unit II	Dr. D.R. Fudani
06/01/2024	8.0 am to 10.0 am	Theory Unit II	Dr. J.N. Patel
08/01/2024	8.0 am to 10.0 am	Theory Unit II	Dr. S.M. Dave
09/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. G. N. Baria
10/01/2024	8.0 am to 10.0 am	Theory Unit III	Dr. S. V. Patel
11/01/2024	8.0 am to 10.0 am	Theory Unit III	Dr. M.P. Goghwala
12/01/2024	8.0 am to 10.0 am	Theory Unit III	Dr. G.N. Baria
16/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. J. N. Patel
17/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. T.M. Patel
18/01/2024	8.0 am to 10.0 am	Practical Unit IV	Prof. Y.P. Valvi
19/01/2024	8.0 am to 10.0 am	Practical Unit IV	Dr. G. N. Baria
20/01/2024	8.0 am to 10.0 am	Viva & Test	-----

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Offered to Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01/01/2024 to 30/01/2024

Registration Details



No.	Roll No.	Name	Phone No.	Address	Signature
1	5161	Abhishek Kumar	9876543210	Modasa	[Signature]
2	5162	[Name]	[Phone]	[Address]	[Signature]
3	5163	[Name]	[Phone]	[Address]	[Signature]
4	5164	[Name]	[Phone]	[Address]	[Signature]
5	5165	[Name]	[Phone]	[Address]	[Signature]
6	5166	[Name]	[Phone]	[Address]	[Signature]
7	5167	[Name]	[Phone]	[Address]	[Signature]
8	5168	[Name]	[Phone]	[Address]	[Signature]
9	5169	[Name]	[Phone]	[Address]	[Signature]
10	5170	[Name]	[Phone]	[Address]	[Signature]
11	5171	[Name]	[Phone]	[Address]	[Signature]
12	5172	[Name]	[Phone]	[Address]	[Signature]
13	5173	[Name]	[Phone]	[Address]	[Signature]
14	5174	[Name]	[Phone]	[Address]	[Signature]
15	5175	[Name]	[Phone]	[Address]	[Signature]
16	5176	[Name]	[Phone]	[Address]	[Signature]
17	5177	[Name]	[Phone]	[Address]	[Signature]
18	5178	[Name]	[Phone]	[Address]	[Signature]
19	5179	[Name]	[Phone]	[Address]	[Signature]
20	5180	[Name]	[Phone]	[Address]	[Signature]
21	5181	[Name]	[Phone]	[Address]	[Signature]
22	5182	[Name]	[Phone]	[Address]	[Signature]
23	5183	[Name]	[Phone]	[Address]	[Signature]
24	5184	[Name]	[Phone]	[Address]	[Signature]
25	5185	[Name]	[Phone]	[Address]	[Signature]
26	5186	[Name]	[Phone]	[Address]	[Signature]
27	5187	[Name]	[Phone]	[Address]	[Signature]
28	5188	[Name]	[Phone]	[Address]	[Signature]
29	5189	[Name]	[Phone]	[Address]	[Signature]
30	5190	[Name]	[Phone]	[Address]	[Signature]

ADD ON COURSE ON "Manufacturing of Soap & Detergent"
Organized by Department of Chemistry
SIR P.T. SCIENCE COLLEGE, MODASA
Date: 01/01/2024 to 30/01/2024

Registration Form



1. Name of student: Asani Nilam Shivabhai
2. Address: At - Jalampur, Po-Navigum, Tal. Modasa
3. Email ID: nilamnilam@gmail.com
4. Mobile Number: - 9313728623
5. Semester of study: - B.A.C SEM-6
6. Subject: - Chemistry
7. Roll No.: - 5161
8. Academic Year: 2023-24
9. Enrollment No: BSA 50621016238
10. Average of SQA of all previous semesters: 7.84

DATE 29/12/23
Place Modasa


Signature of Student

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

DATE: 01/01/2024 to 20/01/2024

Registration Form:



1. Name of Student: Khavadi Romankhul Vimalkhan
2. Address: AT: ITVA TA: MEGHRAT DIST. ARRAJIC
3. Email ID: Khavadiromankhul@gmail.com
4. Mobile Number: 9825290156
5. Semester of study: B.Sc 3rd Sem → 6
6. Subject: Chemistry
7. Roll No: 5172
8. Academic Year: 2023/24
9. Enrollment No: BSC00821010419
10. Average of GPA of all previous semesters: 6.92

Date: 30/12/23
Place: Modasa

Khavadi Romankhul
Signature of Student

No.	Roll No.	Student Name	2-1-24	2-1-24	3-1-24	4-1-24	5-1-24	6-1-24	7-1-24	8-1-24	9-1-24	10-1-24	11-1-24	12-1-24	Total
1	5182	Shubham Jadhav Raju	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
2	5183	Rohan Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
3	5184	Adarsh Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
4	5185	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
5	5186	Harshvardhan Patil	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
6	5187	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
7	5188	Aditya Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
8	5189	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
9	5190	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
10	5191	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
11	5192	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
12	5193	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
13	5194	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
14	5195	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
15	5196	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
16	5197	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
17	5198	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
18	5199	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
19	5200	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
20	5201	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
21	5202	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
22	5203	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
23	5204	Pranav Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15
24	5205	Arjun Desai	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	15



APP - I COLLEGE ON 'MANUFACTURING OF SOAP A PROJECT'
 Formatted by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MIDASA

Date: 01/04/2024 to 30/04/2024

Attendance Sheet

Page No. 6

Sl. No.	Roll No.	Student Name	Attendance Sheet (Days)											
			1	2	3	4	5	6	7	8	9	10	11	12
25	5105	Harshvardhan Kulkarni Dhanu	1-1/24	2-1/24	3-1/24	4-1/24	5-1/24	6-1/24	7-1/24	8-1/24	9-1/24	10-1/24	11-1/24	12-1/24
26	5106	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
27	5107	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
28	5108	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
29	5109	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
30	5110	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
31	5111	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
32	5112	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
33	5113	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	
34	5114	Pranav Kulkarni Anshu	2-2/24	3-2/24	4-2/24	5-2/24	6-2/24	7-2/24	8-2/24	9-2/24	10-2/24	11-2/24	12-2/24	

Co-ordinator: [Signature]

SIR P. T. Science College
 MIDASA-431114, DISTRICT: [District Name]

[Signature]

ADD ON COURSE ON Manufacturing of Soap & Detergent

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 05/01/2024 to 20/01/2024

Attendance Sheet (25/01/2024) 05/Jan/24

Sl. No.	Roll No.	Department Name	05/01/24	06/01/24	07/01/24	08/01/24	09/01/24	10/01/24	11/01/24	12/01/24	13/01/24	14/01/24	15/01/24	16/01/24	17/01/24	18/01/24	19/01/24	20/01/24
04	S215	Industrial Engineering	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
05	S216	Chemical Engineering	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
06	S217	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
07	S218	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
08	S219	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
09	S220	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
10	S221	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
11	S222	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
12	S223	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
13	S224	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
14	S225	Food Technology	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present

Signature

SIR P. T. SCIENCE COLLEGE
MODASA, DISTRICT: SURAT, GUJARAT



Reference Books:

1. Industrial Chemistry by B.K. Sharma
2. Handbook of Industrial Chemistry
3. Soap making by Carol Varney
4. Soap Making Manual by E.G. Thomsen

ADD ON COURSE ON "Manufacturing of Soap & Detergent"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Final Examination

Date: 20/01/2024

Marks: 30

Time: 30 min.

Name of Student: EMEL PARNASIMAN ANANDHARAJAN
Roll No: 5165

1. Which base is used in saponification process? NaOH, KOH ✓

2. Which oil is almost solid at room temperature? Palm oil ✓

3. When glycerine was firstly used in soap? 1851 ✓

4. What is used as moisturizing agent in soap making process? GLYCERINE ✓

5. Which acid found in cow's milk as well as goat's milk? LACTIC ACID ✓

6. Fed of YEM? TOTAL FATIC ACID MATTER ✓

7. Which ions are present in hard water? Ca^{2+} Mg^{2+} ✓

8. True or False? "Too much essential oil in soap is harmful." ✓ TRUE ✓

9. Give one example of non-ionic detergent? TRISODIUM DODECYL SULPHATE ✓

10. At which temp. Glycerine soap base is making? 70-85°C ✓

11. Is soap an acid or base? BASE ✓

12. To reduce scale & mineral deposit in hard water, NaCl is added to soap

13. Classified the synthetic detergents? ANIONIC, CATIONIC, AMPHOTERIC ✓

14. What is another option of essential soap? ESSENTIAL OIL ✓

15. Which solvent is used in making transparent soap? ETHANOL ✓

16. Shaving soap contains ✓ VASELIN to prevent face drying

17. NaOH based soap or KOH based soap. Which are the better for skin? KOH ✓

18. By which formation detergent can remove dirt of grease & oil? MISCIBLE ✓

19. Which compound used to prepare bio-logic detergent? ✓ and POLYMERIZED STARCH

20. Which part of micelle attract with water? HYDROPHILIC ✓

21. What is the TFM value for grade 3 soap? 15.5 ✓

22. What is the side product in saponification process of stearic acid of stearic acid? Glycerol
23. Which type of detergent is used in hair conditioners? Cationic Detergent
24. What is the scientific name of soap? Sodium Palmitate
25. Which type of detergent is used in toothpaste? Co²⁺ Anionic
26. Name other base used in saponification process? NaOH
27. How much time taken by solidifying the soap mixture? 10-15 mins
28. Which other oil used to prepare soap? olive oil
29. What is used in soap as thickener & humectant? Sodium stearate
30. Which fruit contain sorbitol? Pithe

Co-ordinator's Sign



Obtained marks

20/20

ADD ON COURSE ON "Manufacturing of Soap & Detergents"

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Final Examination

Date: 20/01/2024

Marks: 30

Time: 30 min.

Name of Student: PRINYA YADAV SONIADEVI
Roll No: 5199

Which base is used in saponification process? NaOH/KOH

Which oil is almost solid at room temperature? Palm oil

Which glycerol was firstly used in soap? 1852

What is used as moisturizing agent in soap making process? Glycerol

Which acid found in cow's milk as well as goat's milk? Lactic acid

Full of fats? Total fatty matter

Which ions are present in hard water? Ca^{2+} , Mg^{2+}

True or False? "Too much essential oil is harmful" True

Give one example of non-ionic detergent? Liquid dishwashing detergent

For which temp. glycerol soap base is making? 70-75°C

Is soap an acid or base? Base

1. To reduce scale & minerals deposit in hard water NaCl is used in soap

2. Name the synthetic detergents: Anionic, Cationic, Non-ionic

3. What is another option of essential oil? Tragacanth oil

4. Which solvent is used in making transparent soap? Ethanol

5. Which soap contain Sulfuric acid to prevent rancid being

6. Natural based soap or KOH based soap. Which are the better for skin? KOH

7. In which formation detergent can remove stain of grease & oil? Miscell

8. Which compound used to prepare for anti-detergent? Sulfuric acid & Sodium hydroxide

9. Which part of molecule interact with water? Hydrophilic

10. What is the TCM value for goat's milk? 1.5

22. What is the side product in saponification process of glycerol ester of fatty acid? Glycerol
23. Which type of detergent is used in hair conditioners? Cationic Detergent
24. What is the scientific name of soap? Sodium Palmitate
25. Which type of detergent is used in hair shampoos? Anionic
26. Name other base used in saponification process? NaOH
27. How much time taken by solidifying the soap mixture? 1/2 hours
28. Which color is used to impart color? Castor oil
29. What is used in soap as thickener & humectant? Sorbitol
30. Which fruit contain sorbitol? Licorice

Co-Ordinator's Sign



Observed marks

3/10



Grading:

The passing requirement for Add-On courses shall be 50% of the marks prescribed for the course. A candidate who has not secured a minimum of 50% of marks in a course shall not be awarded to the students depending on the percentage of marks obtained by a candidate in a course as below.

Grade	Marks
A	25 -30
B	20-25
C	15-20

ON COURSE ON "Manufacturing of Soap & Detergent"
 Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01/01/2024 to 20/01/2024



Result Sheet

B.Sc Sem 6

No.	Roll No.	Student Name	Obtained Mark (30)	Grade
1	5161	Nilambhai Prathal Kari	27	A
2	5162	Nising Dnyanukumar Dhadnyaw	Ab	-
3	5163	Nisankumar Kishorlal Patel	26	A
4	5164	Nishankumar Kiranbhai Gopal	26	A
5	5165	Nitinbhai Bhagvathlal Patel	26	A
6	5166	Parthkumar Dipakbhai Patel	24	B
7	5167	Prakashsinh Vikramsinh Parmar	24	B
8	5168	Prayanshi Ushu - Jashal Patel	26	A
9	5169	Rahul Dineshbhai Patel	24	B
10	5170	Rajvirsinh Mahendrasinh Gadhya	25	A
11	5171	Romaben Shalabhkhai Panchal	28	A
12	5172	Romeshai Vinodbhai Kharedi	25	A
13	5173	Ruchiben Kamalabhai Patel	27	A
14	5174	Sahilkumar Dineshbhai Patil	25	A
15	5175	Santoshsinh Rajashilpa Khari	26	A
16	5176	Santoshsinh Chaitanbhai Patil	21	B
17	5177	Santoshkumar Ramashilpa Kari	Ab	-
18	5178	Saralaben Arvindbhai Joshiyari	26	A
19	5179	Shetalben Kirtanbhai Danner	25	A
20	5180	Shir Mohanvibhanshi Maghwal	21	A
21	5181	Shreyanshi Vijaykumar Prajapati	25	A
22	5182	Shreyanshi Gajendraji Prasad Shrivastava	20	A
23	5183	Shrutiben Jayantkumar Panchal	24	B
24	5184	Shwetaliben Ajaybhai Zala	27	A
25	5185	Siddhantlal Kotesbhai Danner	21	B
26	5186	Sweety Sureshbhai Khari	26	A
27	5187	Tarsha Vipulbhai Patel	23	A
28	5188	Vandhav Gyanbhai Khari	Ab	-
29	5189	Vandana Ajaybhai Bhanar	Ab	-
30	5190	Vishalraj Kumar Abhishek Thakar	20	B
31	5191	Vishalkumar Vinaybhai Karia	26	A
32	5192	Yagna Sampalbhai Patil	27	A
33	5193	Yuglanshi Kiranbhai Patel	19	C
34	5194	Yuvraj Shalabhkhai Thakar	27	A

Note: Out of 34 students only 30 students are successfully completed the course and get certificate.

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGH EDUCATION SOCIETY MODASA

Affiliated to Panchmaharaja North Gujarat University, Patan.

Accredited with 'B++' Grade (2013 CUQA) by NMAC in the 2nd Cycle

Status awarded to UGC AFD

'A' Grade (CUQA 2014) by AQA by UGC (Govt. of Gujarat)

ADD ON COURSE

"Manufacturing of Soap and Detergent"

Organized by Department of Chemistry

Certificate

This is to certify that Prayanshen B. Patel

Class B.Sc., Semester III, Roll No. 5168

has successfully completed 30 hours Add on Course "**Manufacturing of Soap & Detergent -2024**" which was organized by Department of Chemistry from 01-01-2024 to 20-01-2024 at college campus.


Dr. C.N. Khim

Course Coordinator

Date: 26/01/24

Place: modasa.



Dr. TEJASHREE

Head Dept. of Chemistry


Dr. P. PATEL

Principal

Sir P. T. Science College
Modasa-381120 Dist. Amli.


SIR P. T. SCIENCE COLLEGE
MODASA-381120 DIST. AMLI.

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemachandrabai North Gujarat University, Vadod
Accredited with 'D++' Grade (2017-2024) by NAAC in the 2nd Cycle

Grants awarded by UGC AND

'A' Grade (CGPA 2.04) by AAA by RCII (Govt. of Gujarat)

ADD ON COURSE

*"Manufacturing of Soap and
Detergent"*

Organized by Department of Chemistry

Certificate

This is to certify that Samikshita K. Doshi
Class B.Sc., Semester VI, Roll No. 5185
has successfully completed 30 hours Add on
Course "Manufacturing of Soap & Detergent
-2024" which was organized by Department of
Chemistry from 01-01-2024 to 20-01-2024 at
college campus.


Dr. G. N. Chaudhary

Course Coordinator

Date: 20/01/24

Place: Modasa


Dr. G. N. CHAUDHARY

Head of Chemistry


Dr. R. P. DIXI

Principal

Place:
Sir P. T. Science College
Modasa-38018 Dist. Anand


Dr. G. N. CHAUDHARY
Head of Chemistry



Address: 21453274
Longitude: 73.28892
Latitude: 16.88446
Accuracy: 14.35 Ym
Time: 16/01/2024 18:24
Auto: 0000000000

Utmide: 23.40274
Longitude: 73.250880
Elevation: 167.8843 m
Accuracy: 29.9 m
Time: 15-01-2024 14:45
Note: using myhino





STUDENTS OF THE
 COURSE OF ADD-ON
 COURSE OF SOAP AND
 DETERGENT MANUFACTURE
 IN THE LABORATORY



STUDENTS OF THE
 COURSE OF ADD-ON
 COURSE OF SOAP AND
 DETERGENT MANUFACTURE
 IN THE LABORATORY

Add On Course "Manufacturing of Soap and Detergent"



Add On Course "Manufacturing of Soap and Detergent"



ADD ON COURSE

ON

"MAKING OF PHENYL"

DATE: 03-07-2023 TO 20-07-2023

Duration: 10 Hours

Number of Total Students: 30



Organized By:

DEPARTMENT OF CHEMISTRY

SIR P.T.SCIENCE COLLEGE, MODASA



Course Objectives:

- Discover the start-to-finish process of phenyl manufacturing with explanations of and uses and benefits of making phenyl at home.
- Understand phenyl products: applications in the personal home care and industries.
- It will be more useful for students who are going to earn money by small business at home.

SIR P.T.SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting by the following members was held on 26-06-2023 Friday at 02:00 pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting.

The attached syllabus of 30 hours "ADD ON COURSE ON: "Making of Phenyl"-2023 is approved by this committee after intensive discussion.

Sl No.	Name of Members	Designation	Signature
1.	Dr. K.P.PATEL	Principal	
2.	Dr. S.D.VEDIYA	Head of the Botany Department	
3.	Dr. G.L.VERARIA	WPC Coordinator	
4.	Dr. D.R.FUDAWI	Head of the Chemistry Department	
5.	Dr. K.H.PARMAR	Head of the Physics Department	
6.	Dr. S.V.PATEL	Associate Professor	
7.	Dr. M.P.GONGIWALA	PG in charge Chemistry Department	
8.	Dr. S.M.DAVE	Assistant Professor	
9.	Dr. J.N.PATEL	Assistant Professor	


SIR P.T. SCIENCE COLLEGE
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MODASA
MODASA-380015,GUJARAT

ADD ON COURSE ON "Making of Phenyl"

Organised by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 03/07/2023 to 20/07/2023

Course Duration: 30 Hours

Course Syllabus

Unit: 1. Introduction of phenyl (concept)	7 Hours
1.1 Concept of phenyl. Various types of phenyl	
1.2 Introduction to emulsifies of phenyl	
1.3 Advantages of phenyl	
Unit: 2 Phenyl making process	7 Hours
2.1 Content of phenyl cleaner	
2.2 Making of toilet cleaner, floor cleaner, liquid dish wash	
2.3 Phenyl making process	
2.4 Phenyl making ingredients	
2.5 Phenyl making training	
Unit: 3 Practical	
3.1 Making of white phenyl	5 Hours
3.2 Making of Black Phenyl	5 Hours



APPROVED SYLLABUS FOR ADD ON COURSE ON

"Making of Phenyl" -2023

Prepared by

Department of Chemistry

Course Co-Ordinator: Dr. S.M. Dave

Year: 2023-24

Sir P. T. Science College, Modasa

Date: 03-07-2023 to 20-07-2023

Course Syllabus (30 Hours)

Unit: 1 Introduction of phenyl (concept) 7 Hours

1.1 Concept of phenyl, various types of phenyl

1.2 Introduction to emulsifiers of phenyl

1.3 Advantages of phenyl

Unit: 2 Phenyl making process 7 Hours

2.1 Content of phenyl cleaner

2.2 Making of toilet cleaner, floor cleaner, liquid dish wash

2.3 Phenyl making process

2.4 Phenyl making ingredients

2.5 Phenyl making training

Unit: 3 Practical

3.1 Making of white phenyl 3 Hours

3.2 Making of Black Phenyl 3 Hours

SIR P.T.SCIENCE COLLEGE, MODASA

ADD ON COURSE ON "Making of Phenyl"

Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit 1	1.1 Concept of phenyl, Various types of phenyl 1.2 Introduction to emulsifies of phenyl 1.3 Advantages of phenyl	7 Hours
Unit 2	2.1 Content of phenyl cleaner 2.2 Making of toilet cleaner, floor cleaner, liquid dish wash 2.3 Phenyl making process 2.4 Phenyl making ingredients 2.5 Phenyl making training	7 Hours
Unit 3	3.1 Making of white phenyl 3.2 Making of Black Phenyl	16 Hours

"ADD ON COURSE ON: Making of Phenyl"

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 03-07-2023 to 26-07-2023

Programme: (Time-Table)

Date	Time	Activity	Name of Expert
03/07/2023	8.0 am to 10.0 am	Introduction of course	Principal & Chemistry Staff
04/07/2023	8.0 am to 10.0 am	Theory Unit I	Gajendra Bhatt
05/07/2023	8.0 am to 10.0 am	Theory Unit I	Dr. S. M. Dave
06/07/2023	8.0 am to 10.0 am	Practical Unit I	Gajendra Bhatt
07/07/2023	8.0 am to 10.0 am	Theory Unit II	Dr. D.R. Fudani
08/07/2023	8.0 am to 10.0 am	Theory Unit II	Dr. J.N. Patel
10/07/2023	8.0 am to 10.0 am	Theory Unit II	Dr. S.V. Patel
11/07/2023	8.0 am to 10.0 am	Practical Unit II	Dr. S. M. Dave
12/07/2023	8.0 am to 10.0 am	Theory Unit III	Dr. S. V. Patel
13/07/2023	8.0 am to 10.0 am	Theory Unit III	Dr. M.P. Gongiwala
14/07/2023	8.0 am to 10.0 am	Theory Unit III	Dr. J. N. Patel
15/07/2023	8.0 am to 10.0 am	Practical Unit III	Dr. D.R. Fudani
17/07/2023	8.0 am to 10.0 am	Practical Unit III	Dr. T.M. Patel
18/07/2023	8.0 am to 10.0 am	Practical Unit III	Gajendra Bhatt
19/07/2023	8.0 am to 10.0 am	Practical Unit III	Dr. S. M. Dave
20/07/2023	8.0 am to 10.0 am	Practical Unit III	Dr. S. V. Patel



Reference Books:

1. Industrial Chemistry Vol. 1. by M.G. Arora and M. Singh
2. Industrial Chemistry by H Kumar
3. Industrial Chemistry by A Kumar
4. Industrial Chemistry by B. K. Sharma

ADD ON COURSE ON "Practical Learning"
Organized by Department of Chemistry
SIR P. T. SCIENCE COLLEGE, MIDASA
Date: 01/07/2023 to 30/07/2023

Registration Form



1. Name of student: Santhi Praveen Jithalakshmi
2. Address: Sai Villa Society, Boyad
3. Email ID: santhipraveen2004@gmail.com
4. Mobile Number: 9357462479
5. Semester of Study: B.Sc. Sem-III
6. Subject: Chemistry
7. Roll No: 5102
8. Academic Year: 2022-23
9. Enrollment No: EX-6-00162-510-23
10. Average of SEMs of all previous semesters: 7.70

Date: _____
Place: Midasa

Signature of Student

M.S. SEM-III Examination
March/June 2024

ADMISSIONS OFFICE
SIR P. T. SCIENCE COLLEGE, MODASA
Date: 08/03/2024 to 10/03/2024
Registration Form



1. Name of student: Alvina Jayashree
2. Address: P. S. Chitani, Dh. Tal. Chhat. Dist.
3. Email ID: alvinajayashree@gmail.com
4. Mobile Number: 81202 09494
5. Semester of Study: V
6. Subject: CHEMISTRY
7. Roll No: 5209
8. Academic Year: 2023-2024
9. Enrollment No:
10. Average of SEM of all previous semesters:

Date: _____
Place: Modasa

[Signature]
Signature of Student

ADD ON COURSE ON "MAKING OF MURRY"
 Organized by Department of Chemistry
SIR P. T. SCIENCE COLLEGE, MODASA
 Date: 03/07/2023 to 30/07/2023

Registration Details

Sl. No.	Roll No.	Name	Section	Phone No.	Signature
1	2061	Pooja Anandhi	13	98794 655452145	[Signature]
2	2062	Parul Anand	10	98794 655452145	[Signature]
3	2063	Mansi Anand	10	98794 655452145	[Signature]
4	2064	Shreya Anand	12	98794 655452145	[Signature]
5	2065	Ashwini Anand	10	98794 655452145	[Signature]
6	2066	Pooja Anand	13	98794 655452145	[Signature]
7	2067	Ashwini Anand	12	98794 655452145	[Signature]
8	2068	Ananya Anand	10	98794 655452145	[Signature]
9	2069	Pooja Anand	13	98794 655452145	[Signature]
10	2070	Rishi Anand	10	98794 655452145	[Signature]
11	2071	Ashwini Anand	12	98794 655452145	[Signature]
12	2072	Shreya Anand	10	98794 655452145	[Signature]
13	2073	Rishi Anand	10	98794 655452145	[Signature]
14	2074	Shreya Anand	10	98794 655452145	[Signature]
15	2075	Shreya Anand	10	98794 655452145	[Signature]
16	2076	Shreya Anand	10	98794 655452145	[Signature]
17	2077	Shreya Anand	10	98794 655452145	[Signature]
18	2078	Shreya Anand	10	98794 655452145	[Signature]
19	2079	Shreya Anand	10	98794 655452145	[Signature]
20	2080	Shreya Anand	10	98794 655452145	[Signature]
21	2081	Shreya Anand	10	98794 655452145	[Signature]
22	2082	Shreya Anand	10	98794 655452145	[Signature]
23	2083	Shreya Anand	10	98794 655452145	[Signature]
24	2084	Shreya Anand	10	98794 655452145	[Signature]
25	2085	Shreya Anand	10	98794 655452145	[Signature]
26	2086	Shreya Anand	10	98794 655452145	[Signature]
27	2087	Shreya Anand	10	98794 655452145	[Signature]
28	2088	Shreya Anand	10	98794 655452145	[Signature]
29	2089	Shreya Anand	10	98794 655452145	[Signature]
30	2090	Shreya Anand	10	98794 655452145	[Signature]

Co-ordinator
 Dr. S. M. Gadhvi

[Signature]

SLU ST Science College, Madhav

PHYSICS - III SEM. 3, CHEMISTRY - 2022-23 (Attendance Sheet)

ADD ON COURSE: PRE-HILL MAKING (Soil Development Experiment)

DATE: 07/2023 TO 20/07/2023

Roll No	Student Name	15/07	16/07	17/07	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07	28/07	29/07	30/07	31/07
5001	Srinivas Srinivas Prasad																	
5100	Dr. A. S. R. Srinivas																	
5101	Arun Kumar Srinivas																	
5102	Arun Kumar Srinivas																	
5103	Arun Kumar Srinivas																	
5104	Arun Kumar Srinivas																	
5105	Arun Kumar Srinivas																	
5106	Arun Kumar Srinivas																	
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5109	Arun Kumar Srinivas																	
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5111	Arun Kumar Srinivas																	
5112	Arun Kumar Srinivas																	
5113	Arun Kumar Srinivas																	
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5129	Arun Kumar Srinivas																	
5130	Arun Kumar Srinivas																	

Handwritten note at top left: **Handwritten Signature**

Handwritten notes in the left margin of the table, including names and dates.

Handwritten note at bottom left: **SLU ST Science College**

SR P.T. Science Course, Module

Roll Call B.Sc Sem: 3 Chemistry 2023-24 (Attendance sheet)

ADD ON COURSE: PRACTICE MAKING 15M Developmental Programme

DATE: 08/07/2023 TO 20/07/2023

Roll No	Student Name	11/7/23	12/7/23	13/7/23	14/7/23	15/7/23	16/7/23	17/7/23	18/7/23	19/7/23	20/7/23
1101	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1102	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1103	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1104	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1105	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1106	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1107	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1108	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1109	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1110	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1111	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1112	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1113	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1114	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1115	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1116	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1117	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1118	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1119	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1120	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1121	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1122	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1123	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1124	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1125	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1126	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1127	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1128	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1129	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
1130	Pratiksha Kulkarni	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present

Pratiksha Kulkarni

Pratiksha Kulkarni

Pratiksha Kulkarni

ADD ON COURSE ON "MAKING OF PHENYL"
Organized by Department of Chemistry
SIR P. T. SCIENCE COLLEGE, MODASA

Final Examination

Date: 21/07/2023

Marks: 30

Time: 30 min.

Name of student: Ravi Anand K. Jadhav

Roll No: 2101

1. What oil is used in phenyl? Cooking oil - Mustard oil
2. What are the binding materials? Caustic soda - NaOH
3. What are the common colouring matter? Zinc oxide & other phenyl
4. Which perfumes are added in phenyl? Scrupus oil
5. In which method phenyl is made? hot process
6. In which instrument the dry chaps are added? Barangometer
7. What are the raw materials of phenyl? coarse wood - alkali oil - water
8. Which acid is used in phenyl? 20-30% carbonic acid
9. What is the formula of phenyl? $C_{12}H_{10}$
10. Which phenyl is used in household? Blue phenyl
11. Which emulsifier is used in phenyl? White emulsifier
12. What is phenyl thickness? 2-3 mm thick
13. What is phenyl? Phenyl is an emulsion
14. Which device is required for phenyl machine? dry air, hot air, hot phenyl
15. Is phenyl acid or base? very weak acid

Coordinator's Sign

[Signature]

Overall mark: 15/30

ADD-ON COURSE ON "Making of Pheryl"
Organized by Department of Chemistry
SRI P.T. SCIENCE COLLEGE, MODASA

Final Examination
Date: 21/07/2023

Marks: 30

Time: 30 min.

Name of student: Dhruvan Aravind

Roll No: 5124

1. Which oil is used in pheryl? Pinen oil
2. Which are the binding materials? resin, synthetic resin, oil
3. What are the common coloring matters? Iron oxide - Fe white colorant
4. Which perfumes are added in pheryl? Stearic oil - Fe white colorant
5. In which material pheryl is made? Fe - PVC
6. In which instrument the dye chips are filled? Press/Injection
7. What are the raw materials of pheryl? Acrylic resin, talcum oil, resin
8. Which acid is used in pheryl? Fe H₂O₂, acetic acid
9. What is the formula of pheryl? C₆H₆
10. Which pheryl is used in pheryl? White pheryl
11. Which emulsifier is used in pheryl? Pinen oil
12. What is pheryl? Essential oil
13. What is pheryl? Pheryl is an emulsion
14. Which name is required for pheryl manufacturing? Chemical/Phyl/Pheryl
15. For pheryl acid or base? Acid/Alkali

Examiner's Sign: [Signature]

Overall Marks: 28/30



Grading:

The passing requirement for Add-On courses shall be 50% of the marks prescribed for the course. A candidate who has not secured a minimum of 50% of marks in a course shall not be awarded to the students depending on the percentage of marks obtained by a candidate in a course as below.

Grade	Marks
A	25 -30
B	20-25
C	15-20

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

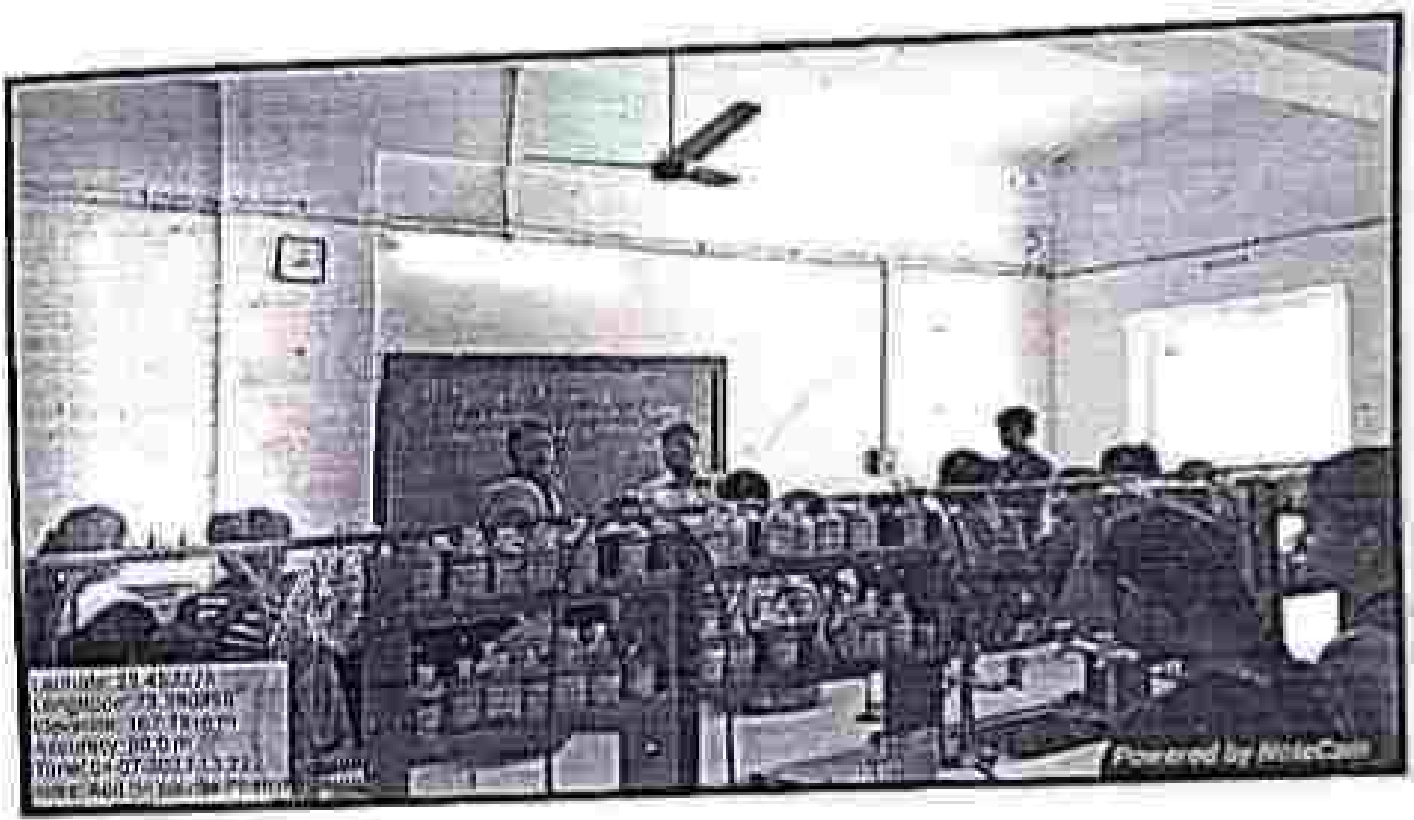
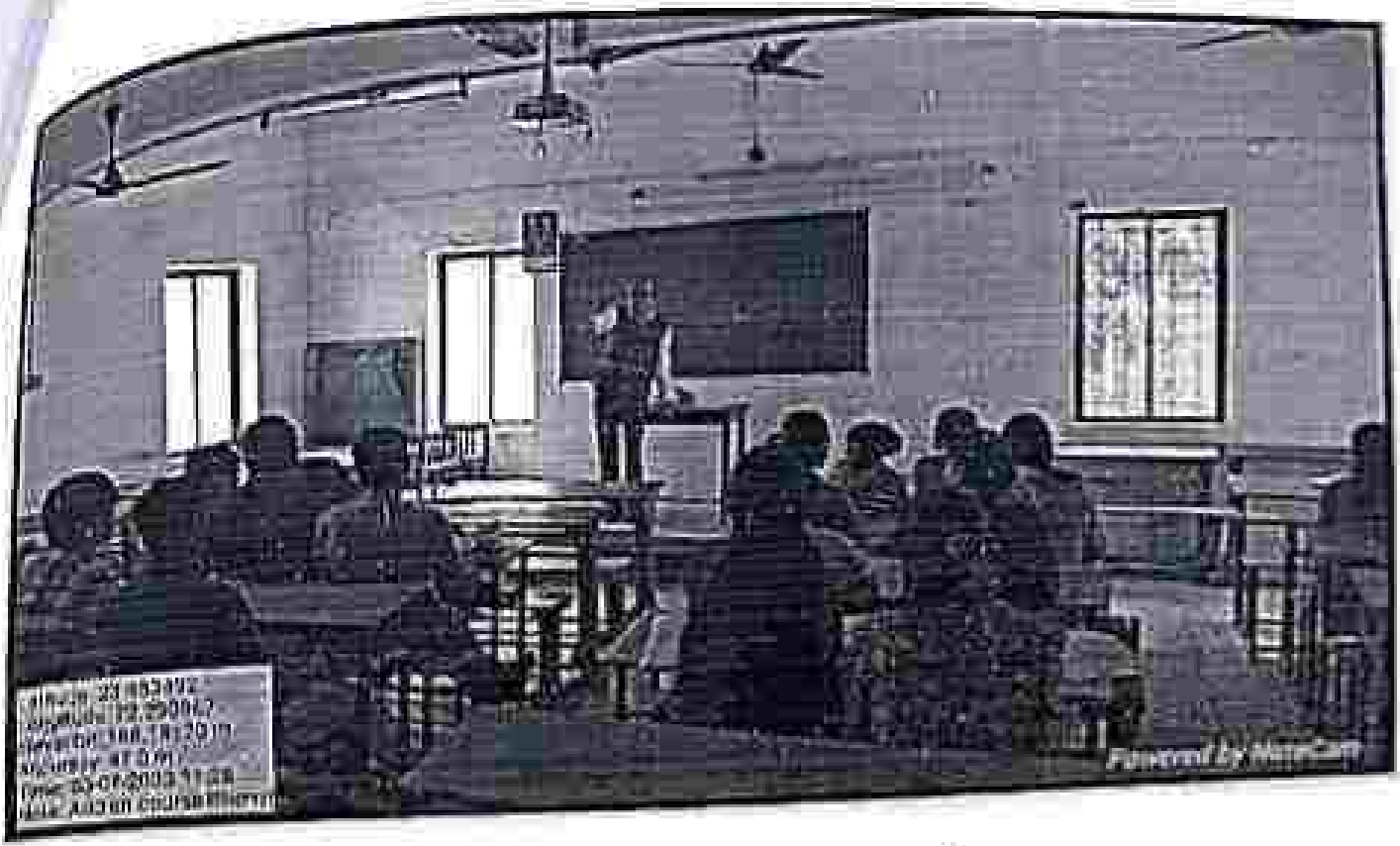
Date: 03/07/2023 to 20/07/2023

Result Sheet

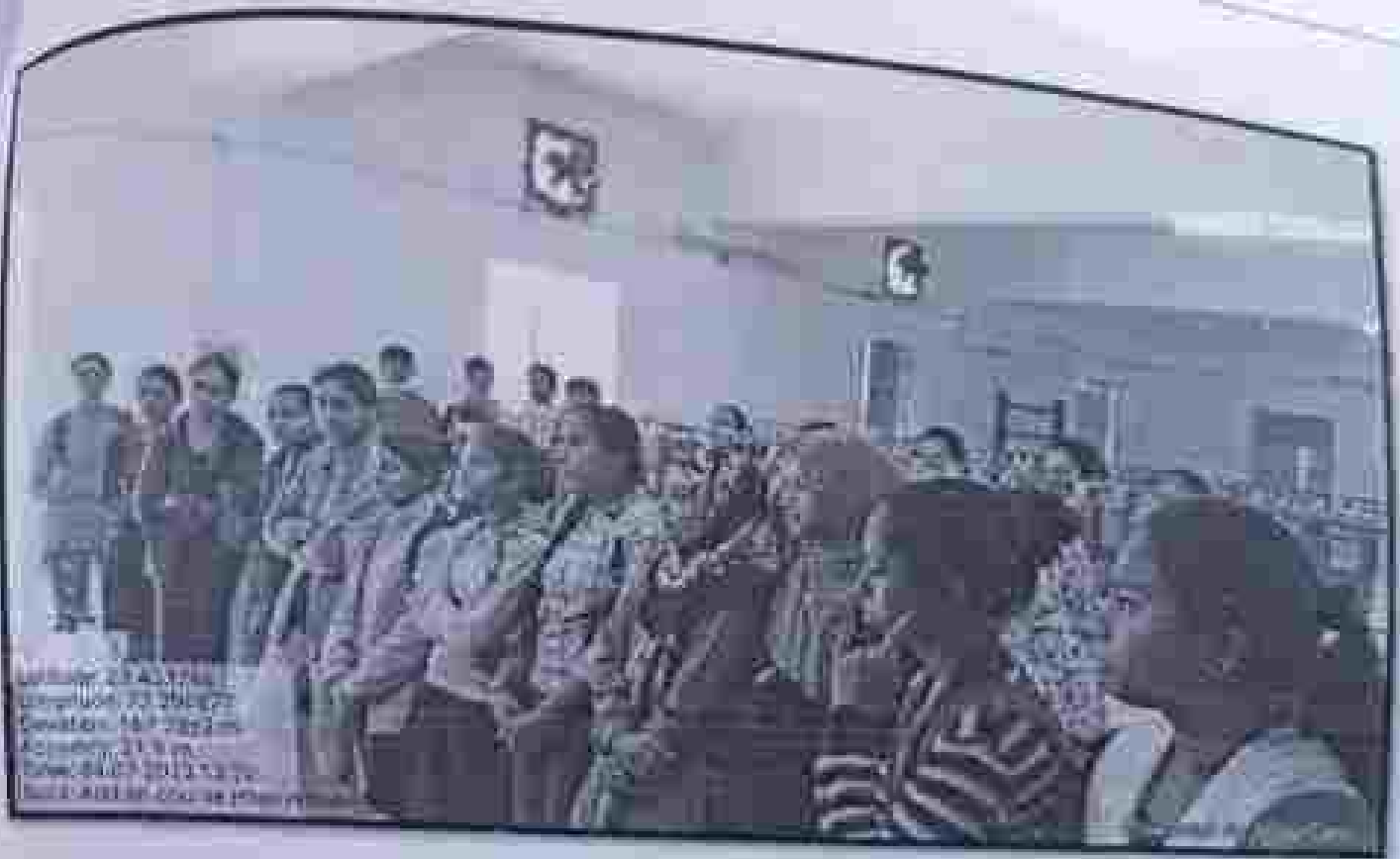
B.Sc Sem 5

Slc	Roll No	Student Name	Obtained Mark (30)	Grade
1	5101	Aashaben Mukeshbhai Patel	26	A
2	5102	Adaykumar Dipakbhai Patel	22	B
3	5103	Anilkumar Raveshbhai Mevat	16	C
4	5104	Adurinjith Rameshrajith Eze	16	C
5	5105	Anilbhai Mohan Males	26	A
6	5106	Ashra Syarabhai Patel	26	A
7	5107	Ashaben Jankubhai Chaudhari	20	B
8	5108	Ayush Mulleshbhai Parmer	16	A
9	5109	Avanikumar Dineshbhai Prajapati	26	A
10	5110	Bhagyashri Parthibhai Patel	16	A
11	5111	Bhargabhai Jyotirajbhai Babbar	24	B
12	5112	Bhupeshkumar Manubhai Patel	18	C
13	5113	Bhaskarabhai Mahipatibhai Bahuguna	26	A
14	5114	Chaitanykumar Sunilbhai Gadhvi	22	B
15	5115	Damodhar Manubhai Patel	20	B
16	5116	Dheer Sureshbhai Prajapati	26	A
17	5117	Dhishraj Dhanrajbhai Prasad	28	A
18	5118	Dharmen Sunilbhai Parmer	24	B
19	5119	Dhruviben Rakshambhai Joshi	24	B
20	5120	Divyanshu Maheshbhai Prajapati	22	B
21	5121	Diveshbhai Rajeshbhai Parmer	28	A
22	5122	Diveshbhai Dhanrajbhai Prajapati	26	A
23	5123	Diveshbhai Dhanrajbhai Prajapati	24	B
24	5124	Dinesh Sunilbhai Mevat	28	A
25	5125	Dipak Manubhai Patel	20	B
26	5126	Disha Sachinbhai Mevat	24	B
27	5127	Disha Sunilbhai Mevat	24	B
28	5128	Hemangbhai Maheshbhai Joshi	24	B
29	5129	Hemantkumar Shambhobhai Joshi	28	A
30	5130	Jyotiben Kishor Mevat	22	B

Note: All 30 Students are successfully completed the course and get certificate.



Add On Course "Making of Phenyl"



Add On Course "Making of Phenyl"

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE MULLGANJHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Dharmendrasinhji North Gujarat University, Vadod
Accredited with "B++" Grade (2023 GPA) by UAC in the 2nd Cycle

Status awarded by UGC AND

(A Grade (GPA) 3.04) in the 1st Cycle (2022) of Gujarat

ADD ON COURSE

"Making of Phenyl"

Organized by Department of Chemistry

Certificate

This is to certify that _____

Class _____ Semester _____ Roll No. _____ has
successfully completed 30 hours Add on Course
"Making of Phenyl-2023" which was organized
by Department of Chemistry from 01-07-2023 to
20-07-2023 at college campus.



Dr. S. H. Dave
Course Coordinator

Date: _____
Place: _____



Dr. H. B. Dhanani
HOD, Dept. of Chemistry

Dr. S. H. Dave
Coordinator, Add on Course
Sir P. T. Science College, Modasa



Dr. H. B. Dhanani

Principal
Sir P. T. Science College
Modasa-380015, Dist. Amreli

**Sir P T Science College Modasa,
Integrated Skill Initiative**

**"Certificate course on Skill Development in Advanced Spectroscopic data
Interpretation (NMR, MASS, UV/IR) techniques" (Hand On)**




Principal
Sir P. T. Science College
Modasa-38315, Dist. Arvad.

DURATION: 20 hrs

HOURS DISTRIBUTION:

Theory-20 hrs
Practical-10
hrs Total-30 hrs

RATIONALE:

The certificate course in instrumentation is put forward with a view to enlighten the knowledge of handling and use of sophisticated instruments and obtaining excellent results. The science graduate as a program can utilize various instruments along with softwares (software) and practical knowledge and training for use of instrument through a number of experiments in respective fields. The course will be very productive in student's career in various fields viz. Research Institutions/Academics/Pharmaceutical/Chemical industries. The course stretches itself from use of basic instruments (UV spectrophotometer) to advanced instruments (HPLC).

CENTRAL OBJECTIVE OF THE COURSE:

In Gujarat more than 2000 Pharma industries, and chemical, Agrochemical, Polymer industries in R&D lab, QC lab, PD lab all sophisticated instrument in used which including PATC. On the completion of this course students will be able to gain knowledge and Practical base operation, and application and calibration skills in dealing with sophisticated instruments like as, UV, IR, in various industries.

ADMISSION REQUIREMENT:

1. The minimum age for admission shall be 21 yrs.
2. The minimum education requirement shall be the passing of BSc/MSc chemistry or Chemical sciences.
3. Candidate shall be medically fit.

INTAKE:

Intake of student total 20-30 per certificate course.

PROPOSED FEES:

Proposed fees shall be selected by College.

For course proposed fee 500 rupees per student.

DURATION:-

Course Duration: -

1 month/Week available:-

4 weeks

Hours per week: - 7.5 hrs

(APPROX) Theory: - 20hrs

Practical: - 10

In. Total hrs: - 30hrs

SCHEME OF EXAMINATION:-

SUBJECT	EXAM HOURS	EXTERNAL
Theory PAATC	2	40marks
Practical PAATC	20minutes	10marks

REGULATION BEFORE EXAMINATION:-

- Minimum passing marks shall be 50% in each of theory and Practical
- A candidate must be having 80% attendance in the one month for appeared in examination.
- Maximum number of attempt permitted for 2times.
- Provision of supplementary examination should be made.
- Classification of result: - 50-59% second division, 60-74% first division, 75% & above 1st division.
- The Maximum period to complete the course successfully should not exceed 2yrs.
- Practical exam must be held in respective College or Research center.
- Maximum number of candidate for practical examination should not exceed 20 per day.

COURSE OF INSTRUCTION:-

SUBJECT	THEORY (hrs)	PRACTICAL (hrs)	TOTAL (hrs)
PAATC	40	60	100

Sir P T Sciences College, Modasa

**** Add on course of Skills Development in advance spectroscopic Technique****

data Interpretation of unknown compound through NMR (1H, 13C), IR,

30hrs

Unit 1:

10hrs

1H NMR Spectroscopy-I Introduction to NMR, isotopic shifts, nuclear spin, chemical shifts, coupling constants and integration, Fourier transform technique. Chemical shifts, coupling constants and correlation with structure and stereochemistry. Long range coupling; magnetic and chemical shift equivalence; first and second order spectra; dynamic process; simplification of spectra by shift reagents and decoupling experiments; stereochemistry by NOE measurements.

Unit 2:

10hrs

1H NMR Spectroscopy-II Nuclear spin states and Larmor precession, spin-spin and spin-lattice relaxations. Selection rules and relative intensities of lines. Treatment of Chemical Shift and spin-spin coupling in AX, AMX and AB proton NMR. Multireference NMR with special reference to C-13 and relative abundances and intensities. Spin-decoupling methods. Origin of NMR chemical shift, and spin-spin coupling. Factors Affecting Chemical Shifts, Chemical exchange, Pulsed FT-NMR- Time and Endpoints. Derivative Spectra.

Unit 3

10hrs

Carbon -13 NMR Spectroscopy: General considerations, chemical shift (aliphatic, olefinic, alkyne and aromatic, hetero aromatic and carbonyl carbon). Coupling constants.

Books suggested:

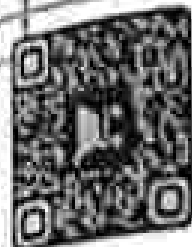
1. **Practical NMR Spectroscopy**, M. L. Martin, E. J. Dineen and G. J. Martin, Heyden.
2. **Spectrometric Identification of Organic Compounds**, R. M. Silverstein, G. C. Bassler and T. C. Morrill, John Wiley.
3. **Introduction to NMR Spectroscopy**, R. L. Atkinson, I. Finer and P. Luffus, Wiley.
4. **Application of Spectroscopy of Organic Compounds**, J. R. Oyer, Prentice Hall.
5. **Spectroscopic Methods in Organic Chemistry**, D. H. Williams, I. Fleming, Tata McGrawHill.

6. W. Kemp, Organic Spectroscopy, 3rd edition, Wiley, 1976.
 7. Introduction to Spectroscopy: Donald L. Pavia, Thomson, 2009.
 8. Modern NMR techniques for Chemistry Research, A. E. Derome, Pergamon.
 9. Physical Methods in Chemistry, R. S. Drago, Saunders College.
 10. Chemical Applications of Group Theory, F. A. Cotton
-


Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvaill.





CERTIFICATE

This certificate declares that

{{Full Name}}

has completed

Add on course of Skill Development in Advanced Spectroscopic (NMR, MASS, UV/IR) techniques on 4th December 2023 to 3rd January 2024. This certificate has been issued as a confirmation and skills of various useful instruments in Chemical, Pharma industries. his/her successful completion of the training.

Course Coordinator
Dr T M Patel



Principal
Dr K. P Patel



HOD
Dr D R Fudani



Sr D T G - In-charge Collections

Sri P. T. Science College Modasa,

Sri P. T. Science College, Modasa
Registration of students' Enrollment through Online Application

Sl. No.	Name	Roll No.	Enrollment No.	Enrollment Date	Enrollment Status	Enrollment Fee	Enrollment Fee Paid	Enrollment Fee Receipt No.	Enrollment Fee Receipt Date	Enrollment Fee Receipt Issued By
1
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2021

Principal
Sri P. T. Science College
 Modasa-383015, Dist- Arvad



Dr. P. T. Science College
 Mysore
 575 001



Sl. No.	Name of the Candidate	Roll No.	Grade	Percentage	Remarks
1	A. A. A.	101	B	75	
2	A. A. B.	102	C	65	
3	A. A. C.	103	D	55	
4	A. A. D.	104	E	45	
5	A. A. E.	105	F	35	
6	A. A. F.	106	G	25	
7	A. A. G.	107	H	15	
8	A. A. H.	108	I	5	
9	A. A. I.	109	J	0	
10	A. A. J.	110	K	0	
11	A. A. K.	111	L	0	
12	A. A. L.	112	M	0	
13	A. A. M.	113	N	0	
14	A. A. N.	114	O	0	
15	A. A. O.	115	P	0	
16	A. A. P.	116	Q	0	
17	A. A. Q.	117	R	0	
18	A. A. R.	118	S	0	
19	A. A. S.	119	T	0	
20	A. A. T.	120	U	0	

Dr. P. T. Science College Mysore

Signature

SCHEME OF QUESTION PAPER:-

Sir P T Science College Modasa,

Practical Approach of Instrumental Techniques in Chemistry (PATIC)

Scheme of Question Paper

Hours:-2

Marks:-50

Instruction:- Attempt all the questions.
Draw the figures lines necessary, wherever applicable.

Q-1 Define the following.

1) Ion chromatography (IC)
2) GC/MS

3) Give the applications of TEM.
4) Which elements analyzed by AAS? What is principle of ICP?

(5)

Q-2 Write the short notes (Any four)

1) Give the difference between HPLC and GC.
2) Explain IR spectroscopy / mass spectroscopy.
3) Write short note on LCMS working mechanism.
4) Give the applications of NMR, IR, UV.

(20)

Q-3 Essay Type Question

1) Explain the sample preparation of GC, HPLC, IC.
Write short note on AAS, FID.
2) Give the difference between TEM and SEM.
3) Write short note on electrochromism, PH, Conductometric.
4) What is the use of columnar chromatography? Give its working mechanism.

(20)

Q-4 Write short answer (any five)

Give the correct match:

A
1. UV
2. IR
3. FID
4. NMR
5. XRF

B
a) 2006 Nitrobenzene
b) Detection of pyrolytic hydrocarbon
c) Gas flow rate, No. of Analyte
d) Dipole moment change
e) Find the interface between layers.

(10)


Principal

Sir P. T. Science College
Modasa-383015, Dist. Aravalli



MARK DISTRIBUTION:-

Sr.No	Unit	Mark Distribution
1	Unit I	5
2	Unit II	5
3	Unit III	5
4	Unit IV	25
5	Unit V	10
	TOTAL	50

CURRICULUM - PART C

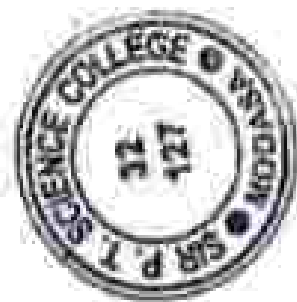
Theory (100%)

Unit	Time (hrs)	Learning objectives	Content	Teaching Learning Activity & /A.V. Aids/aid	Evaluation Method
1	3	HPLC, GC, UV	An Overview of instrumentation calibration and working applications of each instrument.	<ul style="list-style-type: none"> Lectures and discussion Explain using charts, poster, blackboard, LCD 	<ul style="list-style-type: none"> Short answer MCQ Essay type questions
2	10	IR, NMR, T L.C, PMW	Data interpretation of organic compound. Structure analysis, identify crystalline compound.	<ul style="list-style-type: none"> Lectures and discussion Explain using charts, poster, blackboard, LCD 	<ul style="list-style-type: none"> Short answer MCQ Essay type questions
3	10	AAS, FID, Koffredon	Sample analysis of ions, analysis of qualitative chemical. Water environment analysis.	<ul style="list-style-type: none"> Lectures and discussion Explain using charts, poster, blackboard, LCD 	<ul style="list-style-type: none"> Assessment of ability to book / use Procedure Short answer MCQ
4	10	SEM, TEM, IERD	Surface morphological study of material study.	<ul style="list-style-type: none"> Lectures and discussion Explain using charts, poster, blackboard, LCD 	<ul style="list-style-type: none"> Short answer MCQ Essay type questions Procedure
5	10	Colorimeter, Durometer, Beaufort filament	Find unknown concentration of different sample.	<ul style="list-style-type: none"> Lecture and discussion Explain using charts, poster, blackboard, LCD 	<ul style="list-style-type: none"> Short answer MCQ Essay type questions

REFERENCES

Reference books:

- 1) Analytical Chemistry (L.W) G.D. Christian
- 2) Introduction to Chromatography: Bobbit
- 3) Instrumental Methods of Analysis (CBS) H.H. Willard; L.L. Merit; J.A. Dean & F.A. Settle
- 4) Instrumental Methods of Analysis: Chatwal and Arand
- 5) Instrumental Methods of Inorganic Analysis (ELBS): A.L.V pge;
- 6) Chemical Instrumentation, A Systematic approach; H.S. Strobel
- 7) Physical Chemistry; P.W. Atkins.
- 8) Principles of Instrumental Analysis-D. Skoog and D. West
- 9) Treatise on Analytical Chemistry; Vol. I to VIII, M. Kolthoff.
- 10) Computer Fundamentals; P. K. Sinha.
- 11) Programming in BASICS; Balaguruswamy.
- 12) Computer Programming made simple; Meynard.




Sir P. T. Science College
Modasa-383315, Dist Arvaill

Sir P T Science College Modasa,

"Certificate course on Skill Development in
Advanced Spectroscopic data interpretation (NMR,
MASS, UV/IR) techniques" (Hindi Only)

(Constituent College of HPPSC Patna)

Application Form:

(FOR OFFICE USE ONLY)

Received By:

Forward No.:

Fee Paid/Receipt no. date and Amount

NOTE

1. Do Capital letters only

2. All details to be given in Hindi

2. Full Name in Hindi

3. All details to be given in Hindi

Full Name: RATHOD LAJJA MUHESHSTINH

Address: ...

Father Name: MUHESHSTINH Mobile No.:

NIROBEN

Date of Birth: 15/12/2003



Level of Study:

Present Course/Institute:

BSC sem-6 chemistry

Address of Institute:

Sir P. T. Science college, Modasa.

Correspondence Address:

...

Present Address (if different):

...

Sex:

Age: 20 years

Roll No.:

Phone No. (H): ...

Mobile No.:

...

DOB:

Place:

Pin Code:

...



...
Principal
Sir P. T. Science College
Modasa-383115, Dist. Anand

Academic Records:

No. No	Degree Obtained	Board/University	Percentage/Grade	Year
1	BSC-4	H.N.G.O.U	8.63	
2	BSC-5sem	H.N.G.O.U	7.83	
3	BSC Sem-6	H.N.G.O.U	-	

UNDERTAKING FROM THE STUDENT

- Here by agree to pay the tuition fee within 10 days of starting the term/semester.
- I hereby agree to abide by institutional rules related to academics, general behavior, grooming and modified from time to time. I will not indulge in any unbecoming or dishonouring activities which may reflect the natural or governmental credit and dignity of institutional agencies. The disciplinary action taken by the Institute/Government will be binding on me. In addition, I am liable to be debarred from the Institute/University.
- I further give binding that I will always carry I.D. card while in campus, failing to which I will be liable to be debarred from the Institute/University.
- I will immediately inform the Institute office in writing any changes in my or my parents.
- Minimum passing marks shall be 50% in each of the theory and practical.
- A candidate must observe strict discipline in the conduct of appearing in examination.
- If admitted to attend the examination, the student must appear in the examination.
- Students member of whom principal has been debarred from appearing in examination should be re-examined.
- The student must appear in the examination within the stipulated time.
- The student must appear in the examination within the stipulated time.

Place:

Date:

L.M. Pathak
Signature

Sir P T Science College Modasa,

"Certificate course on Skill Development in
Advanced Spectroscopic data interpretation (NMR,
MASS, UVIR) techniques" (1 and 2nd)

(Chartered College of HMCU, Baroda)

Application Form	(FOR OFFICIATION)
Received By:	Issued No.:
For Particulars (vs. Date and Amount)	

Name: Dr. Kapil Kumar / Dr. Anil Kumar
Address: ...

Roll Name: RA ZALA / SOJETA / AJABEISHA
Father Name: AJABEISHA / Mother Name: ...
MADHUBENI / Date of Birth: 23/12/2004



Present Description/Study: BSC Sem-6 Chemistry

Address of Institution: Sir P T Science College, Modasa

Correspondence Address:	Permanent Address (if different)
	<u>Plot LALPURA, P.S. - KIDOL</u>
	<u>To: Bhansali</u>
	<u>Dist. Amalgi</u>
City:	City:
State: <u>Gujarat</u>	State: <u>Gujarat</u>
Pincode: <u>383340</u>	Pincode: <u>383340</u>
Phone No.: <u>8353431364</u>	Phone No.: <u>8353431364</u>
E-mail:	

Website: 2StudeJahn@gmail.com



Principal
Sir P. T. Science College
Modasa-383340, Dist. Amalgi

Sir P T Science College Modasa,

"Certificate course on Skill Development in
Advanced Spectroscopic data interpretation (NMR,
MASS, UV/IR) techniques" (Haud Oa)

Confidential College of INGU Patna)

Application Form:

(FOR OFFICE USE ONLY)

Received By:

Inward No.:

Fee Paid (Receipt no, date and Amount):

NOTE

1. Fill up carefully.

2. Tick ✓ in the relevant box.

3. Read the instructions carefully before filling up the form.

4. Attach all the necessary documents.

Full Name: Kadaram Vishalkumar Vajubhai

(Please Underline Certificate or last name when submit proof)

Father Name: Vajubhai

Mother Name:

Vishubhai

Date of birth: 15/01/2004



Old analysis:

Present Occupation/Study: B.Sc SEM-8 (Chemistry)

Address of Institute:

Correspondence Address	Permanent Address (if different)
<p>City <u>Meghnadi</u></p> <p>Area <u>Gujrat</u></p> <p>Pincode <u>383150</u></p> <p>Phone No. (H) <u>9213879931</u></p> <p>MO <u>9328482696</u></p>	<p>City <u>Meghnadi</u></p> <p>Area <u>Gujrat</u></p> <p>Pincode <u>383150</u></p> <p>Phone no. (H) <u>9213879931</u></p> <p>MO <u>9328482696</u></p>

kadaramvishalk405@gmail.com

Sir P T Science College Modasa.

20 Certificate course on Skill Development in
Advanced Spectroscopic Data Interpretation (NMR,
MASS, UV-Vis) techniques (Hans Otto)

Department of Chemistry, Modasa

Registration Form

MOHAMMED FARDOX

Roll No.

10000000000000000000

Enrollment No. of UGC

Age

23 (Date of Birth) 10-01-2000

Name MESHA BETH CHIEF MOHAMMED FARDOX

Father Name MOHAMMED FARDOX Mother Name SABINA

MOHAMMED FARDOX NEAREST Date of Birth 10-01-2000



Level

Present Description Study

B.Sc - CHEMISTRY

Address of Applicant

Residence Address: POST OFFICE: MODASA, DISTRICT: DABHOI, GUJARAT
MODASA COURT ROAD, MODASA, GUJARAT

City MODASA
State GUJARAT
Pincode 382015
Phone No. 9923372981

City MODASA
State GUJARAT
Pincode 382015
Phone No. 9923372981

**ADD ON COURSE
ON
"MANUFACTURING OF SYNTHETIC DYES"**

DATE: 01-01-2024 TO 20-01-2024

Duration: 30 Hours

Number of Total Students: 30



Organized By:

DEPARTMENT OF CHEMISTRY

SIR P.T.SCIENCE COLLEGE, MODASA



Course Objectives:

- > Discover the start-to-finish process of dyes manufacturing with explanations of and synthesis of dyes.
- > Understand Dyes products' applications in the personal fabric, and home care industries. And also understanding their sources in India.
- > It will be more useful for students who are going to earn money by small business at home.

SIR P.T.SCIENCE COLLEGE, MODASA



Minutes

A meeting of the committee consisting by the following members was held on 15-12-2023 Friday at 02:00 pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting.

The attached syllabus of 30 hours "ADD ON COURSE ON: "Manufacturing of Synthetic Dyes" -2024 is approved by this committee after intensive discussion.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. S.V.PATEL	Associate Professor	
7	Dr. M.P.GONGIWALA	PG in charge Chemistry Department	
8	Dr. S. M. DAVE	Assistant Professor	
9	Dr. J. N. PATEL	Assistant Professor	
10	Dr. T. M. PATEL	Assistant Professor	
11	Prof. Y. P. VALVI	Assistant Professor	
12	Dr. G. N. BARIA	Assistant Professor	

SIR P. T. SCIENCE COLLEGE, MODASA
ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

Date: 01/01/2024 to 20/01/2024

Course Duration: 30 Hours

Course Syllabus

Unit: 1 Introduction of Dyes:	2 Hours
1.1 Classification, structure and sources of Dyes	
1.2 Different types of Dyes	
Unit: 2 Developments of Dyes:	4 Hours
2.1 Discovery of Dyes	
2.2 Uses of Dyes	
Unit: 3 Colour and Chemical Constitution	4 Hours
3.1 Witt's Theory, Modern Theory, Valance bond theory	
3.2 Armstrong Theory (imitation), Balyas Theory, Watsons Theory	
Unit: 4 Azo Dyes	6 Hours
4.1 Introduction, Synthesis of Dyes	
4.2 Method of Diazotization	
Unit: 5 Azolic Dyes	6 Hours
5.1 Introduction, Example of Azolic dyes	
5.2 Synthesis of Azolic dyes	
Unit: 6 Indigo Dyes	6 Hours
6.1 Introduction, Indigo dyes/Vat dyes, Indigo, structure of indigo	
6.2 Synthesis of Indigo Reumanns synthesis, Sondmeyer's process, Boveri synthesis	
Unit: 7 Non-Textile uses of Dyestuffs	2 Hours
7.1 Introduction, Leather dyes, Paper dyes, Food colours, solvent dyes, Wool dyes	
7.2 Medicinal dyes, photography, Cosmetic dyes, indicators & Reagent	

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Manufacturing of Synthetic Dyes" - 2024

Organized by Department of Chemistry

Course Co-Ordinator: Asst. Prof. Yogesh P. Valvi

Year: 2023-24

Sir P. T. Science College, Modasa

Date: 01-01-2024 to 20-01-2024

Course Syllabus (30 Hours)



Unit: 1 Introduction of Dyes: 2 Hours

- 1.1 Classification, structure and sources of Dyes
- 1.2 Different types of Dyes

Unit: 2 Developments of Dyes: 4 Hours

- 2.1 Discovery of Dyes
- 2.2 Uses of Dyes

Unit: 3 Colour and Chemical Constitution 4 Hours

- 3.1 Witt's Theory, Modern Theory, Valance bond theory
- 3.2 Armstrong Theory- limitation, Beyer's Theory, Watters Theory

Unit: 4 Azo Dyes 6 Hours

- 4.1 Introduction: Synthesis of Dyes
- 4.2 Method of Diazotization

Unit: 5 Azoic Dyes 6 Hours

- 5.1 Introduction, Example of Azoic dyes
- 5.2 Synthesis of Azoic dyes

Unit: 6 Indigo Dyes 6 Hours

- 6.1 Introduction, Indigo dyes/vat dyes, Indigo, structure of Indigo
- 6.2 Synthesis of Indigo Heumann's synthesis, Soudmeyer's process, Bayel's synthesis

Unit: 7 Non-Textile uses of Dyestuffs 2 Hours

- 7.1 Introduction, Leather dyes, Paper dyes, Food colours, solvent dyes, Wood dyes
- 7.2 Medicinal dyes, photography, Cosmetic dyes, Indicators & Reagent

SIR P.T.SCIENCE COLLEGE, MODASA

ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

Course Distribution (30 Hours)

Unit	Syllabus	Hours
1	1.1 Classification, structure and sources of Dyes 1.2 Different types of Dyes	2 Hours
2	2.1 Discovery of Dyes 2.2 Uses of Dyes	4 Hours
3	3.1 Witt's Theory, Modern Theory, Valence bond theory 3.2. Armstrong Theory, limitation, Bloor's Theory, Watson's Theory	4 Hours
4	4.1 Introduction, Synthesis of Dyes 4.2 Method of Diazotization	6 Hours
5	5.1 Introduction, Example of Azoic dyes 5.2 Synthesis of Azoic dyes	6 Hours
6	6.1 Introduction, Indigo dyes/vat dyes, Indigo, structure of indigo 6.2 Synthesis of Indigo Heumann's synthesis, Sondmeyer's process, Bayer's synthesis	6 Hours
7	7.1 Introduction, Leather dyes, Paper dyes, Food colours, solvent dyes, Wood dyes. 7.2 Medicinal dyes, photography, Cosmetic dyes, Indicators & Reagent	2 Hours

ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01-01-2024 to 20-01-2024



Programme (Time-Table)

Date	Time	Activity	Name of Expert
01/01/2024	8:0 am to 10:0 am	Introduction of course- Unit I	Principal & Chemistry Staff
02/01/2024	8:0 am to 10:0 am	Theory Unit II	Dr. D.R. Fudani
03/01/2024	8:0 am to 10:0 am	Theory Unit II	Dr. S.V. Patel
04/01/2024	8:0 am to 10:0 am	Theory Unit III	Dr. S.M. Dave
05/01/2024	8:0 am to 10:0 am	Theory Unit III	Dr. J.N. Patel
06/01/2024	8:0 am to 10:0 am	Theory Unit IV	Prof. Y.P. Valvi
08/01/2024	8:0 am to 10:0 am	Practical Unit IV	Dr. T.M. Patel
09/01/2024	8:0 am to 10:0 am	Practical Unit IV	Dr. G.N. Baria
10/01/2024	8:0 am to 10:0 am	Theory Unit V	Dr. M.P. Gangwale
11/01/2024	8:0 am to 10:0 am	Practical Unit V	Prof. Y.P. Valvi
12/01/2024	8:0 am to 10:0 am	Practical Unit V	Prof. Y.P. Valvi
16/01/2024	8:0 am to 10:0 am	Theory Unit VI	Dr. D.R. Fudani
17/01/2024	8:0 am to 10:0 am	Practical Unit VI	Dr. T.M. Patel
18/01/2024	8:0 am to 10:0 am	Practical Unit VI	Prof. Y.P. Valvi
19/01/2024	8:0 am to 10:0 am	Theory Unit VII	Dr. G.N. Baria
20/01/2024	8:0 am to 10:0 am	Viva & Test	



Sir P. T. Science College,
Modasa-380013, Dist. Anand

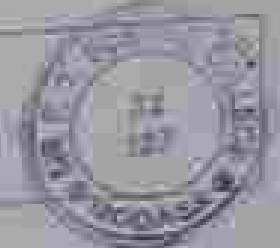
ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 01/04/2024 to 20/04/2024

Registration Details



Sl. No.	Roll No.	Student Name	Class	Mobile No.	Signature
1	5145	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
2	5146	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
3	5147	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
4	5148	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
5	5149	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
6	5150	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
7	5151	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
8	5152	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
9	5153	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
10	5154	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
11	5155	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
12	5156	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
13	5157	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
14	5158	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
15	5159	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
16	5160	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
17	5161	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
18	5162	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
19	5163	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
20	5164	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
21	5165	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
22	5166	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
23	5167	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
24	5168	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
25	5169	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
26	5170	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
27	5171	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
28	5172	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
29	5173	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
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34	5178	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
35	5179	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
36	5180	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
37	5181	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
38	5182	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
39	5183	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
40	5184	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
41	5185	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
42	5186	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
43	5187	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
44	5188	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
45	5189	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
46	5190	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
47	5191	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
48	5192	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
49	5193	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
50	5194	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
51	5195	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
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53	5197	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
54	5198	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
55	5199	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]
56	5200	Patel Nishu Ruteshben	Sem-6	9079261858	[Signature]

Registration Form



1. Name of Student: Sathish - J. K. 2024 //
2. Address: AT: P. P. T. - G. H. 1/1, T. - V. P. H. 2, Dist - Subarnapur
3. E-mail: J. k. 2024@gmail.com
4. Mobile Number: 852770103
5. Semester of Study: 5th Sem - C
6. Subject: Chemistry
7. Roll No.: 5857
8. Academic Year: 2023-24
9. Enrollment No.: BS/2023/102/43/2
10. Average of CGPA of all previous semesters: 4.00

Date: 01/01/2024
Place: Modasa

Signature of Student
J. K. Sathish

ADD ON COURSE ON "Manufacturing of different Synthetic Dyes"

Organised by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Date: 01/01/2024 to 20/01/2024

Registration Form



1. Name of Student: Pooja Krishna F
2. Address: No. 4, Post: Khatkhola, Tal: Modasa, Dist: Anand
3. Email ID: Poojasharma1750@gmail.com
4. Mobile Number: 9165206545
5. Semester of Study: B.Sc. 4th Sem
6. Subject: Chemistry
7. Roll No: 0246
8. Academic Year: 2023/24
9. Enrollment No: BSC 00870026336
10. Average of GPA of all previous semesters: 5.08

Signature of Student

Date: 13/01/2025
Place: Modasa

SA H.P. Subunit Culture Record
 Add Cell # to Item # Chemistry 2023-24 (Prevalence Sheet)
 Add on Culture - MANUFACTURE OF SYNTHETIC DNA

DATE: 11/1/2023 TO 20/1/2024

Observer: [Signature]

Item #	Subunit Name	11/1/2023	11/15/2023	11/29/2023	12/13/2023	12/27/2023	1/10/2024	1/24/2024
1101	Subunit 1	...	...	...	...	...	...	...
1102	Subunit 2	...	...	...	...	...	...	...
1103	Subunit 3	...	...	...	...	...	...	...
1104	Subunit 4	...	...	...	...	...	...	...
1105	Subunit 5	...	...	...	...	...	...	...
1106	Subunit 6	...	...	...	...	...	...	...
1107	Subunit 7	...	...	...	...	...	...	...
1108	Subunit 8	...	...	...	...	...	...	...
1109	Subunit 9	...	...	...	...	...	...	...
1110	Subunit 10	...	...	...	...	...	...	...
1111	Subunit 11	...	...	...	...	...	...	...
1112	Subunit 12	...	...	...	...	...	...	...
1113	Subunit 13	...	...	...	...	...	...	...
1114	Subunit 14	...	...	...	...	...	...	...
1115	Subunit 15	...	...	...	...	...	...	...
1116	Subunit 16	...	...	...	...	...	...	...
1117	Subunit 17	...	...	...	...	...	...	...
1118	Subunit 18	...	...	...	...	...	...	...
1119	Subunit 19	...	...	...	...	...	...	...
1120	Subunit 20	...	...	...	...	...	...	...

Handwritten notes and signatures in the left margin, including a large 'N' and various initials.





Reference Books:

1. Synthetic Dyes by M. S. Yadav
2. The Chemistry of Synthetic Dyes by K Venkataratnam
3. Industrial Chemistry by B.K. Sharma
4. Synthetic Dyes by Rajbir Singh
5. Synthetic Dyes by Gurdeep R. Chatwal

ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Department of Chemistry
SRI P. T. SCIENCE COLLEGE, MOKASA

Final Examination
Date: 30/01/2024

30 MINS

Marks: 30

Q.1) Write short notes on the following:
a) Direct dyes

1. Direct dyes have affinity towards which fibre? cellulose

2. Give two examples of direct dyes. Orange II, Yellow 10

3. Give the structure of the chromophore of direct dyes.

4. Give the structure of the auxochrome of direct dyes.

5. How are direct dyes prepared by the process of diazotization?

6. Give the structure of the dye prepared from the following.

7. The dye prepared from the following is Orange II.

8. Name the class of dyes to which the following belongs.

9. To which class of dyes does the following belong?

10. The compound is known as Direct Yellow 10.

11. Give the structure of the dye prepared from the following.

12. Give the structure of the dye prepared from the following.

13. Give the structure of the dye prepared from the following.

14. Give the structure of the dye prepared from the following.

15. Give the structure of the dye prepared from the following.

16. Give the structure of the dye prepared from the following.

17. Give the structure of the dye prepared from the following.

18. Give the structure of the dye prepared from the following.

19. Give the structure of the dye prepared from the following.

20. Give the structure of the dye prepared from the following.

21. Give the structure of the dye prepared from the following.

22. Give the structure of the dye prepared from the following.

23. Give the structure of the dye prepared from the following.

24. Give the structure of the dye prepared from the following.

ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

SIR P.T. SCIENCE COLLEGE, MODASA

Final Examination

Date: 20/01/2024

Marks: 30

30 min

Name of student: Darshini Abanti Mukeshbhai

Roll No: 3156

1. Acid dyes have affinity towards which fiber? Cotton

2. Basic dyes have affinity towards which fiber? Cotton & Silk

3. Give two examples of Basic dyes: Methylene Blue, Induline Yellow

4. What group present inazo dyes? R-N=N-A

5. How dye fixed on fabric by the process applicable in Leucoform dyes

6. Induline is prepared from the Exin

7. In blue print process involves the use Iron compound

8. Exin belongs to the class of Disperse dyes

9. In which class of dyes does phenolphthalein belongs Phthalate dyes

10. The compound used to fix a dye to the fabric is known as Mordant

11. Give two examples of disperse dye Cellulose

12. Methylene green is direct dyes it is prepared by condensing Benzoic chloride & methylamine

13. The two formulae of structure represent a colourless substance Cell-CO-NH-NH-Cell

14. An example of Anthraquinone dye is Alizarin

15. Methyl orange is an indicator in acid-alkali titration it gives colour in transition

Yellow colour in alkaline medium and red colour

in acid medium

10/10

10/10



Grading:

The passing requirement for Add-On courses shall be 50% of the marks prescribed for the course. A candidate who has not secured a minimum of 50% of marks in a course shall not be awarded to the students depending on the percentage of marks obtained by a candidate in a course as below.

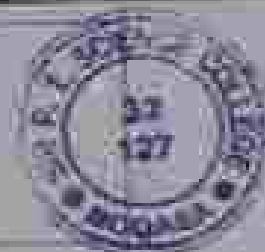
Grade	Marks
A	25-30
B	20-25
C	15-20

ADD ON COURSE ON "Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 03/01/2024 to 20/01/2024



Result Sheet

B.Sc. Sem II

No.	Roll No.	Student Name	Obtained Mark (10)	Grade
1	5131	Jalmitkumar Bharatiben Prangali	38	C
2	5132	Jaykumar Anubhai Patil	29	A
3	5133	Jaykumar Jayaramji Dabhi	28	A
4	5134	Jaykumar Dattatraya Patil	22	B
5	5135	Jaykumar Arvindbhai Godat	20	B
6	5136	Jayashree Dhulabhai Khant	20	B
7	5137	Jaykumar HIRSHABA Sutar	24	A
8	5138	Kamalkumar Ashokrao Dhadok	40	-
9	5139	Kamlesh Narayandrao Patil	28	A
10	5140	Karan Anandbhai Kulkarni	15	C
11	5141	Kavita Mukundbhai Patil	14	C
12	5142	Krushik Gopalakrishna Patil	24	B
13	5143	Krushik Jagdishrao Patil	22	B
14	5144	Krushikumar Jayantibhai Kumbhar	10	B
15	5145	Krushikumar Sakardesai Patil	26	B
16	5146	Krushik Pradipbhai Patil	19	A
17	5147	Krushikumar Dattatraya Patil	28	A
18	5148	Krushikumar Anandbhai Kulkarni	25	A
19	5149	Krushikumar Santoshbhai Patil	14	C
20	5150	Lagden Maheshbhai Patil	28	A
21	5151	Mahesh Pradipbhai Patil	30	A
22	5152	Mahesh Dattatraya Patil	18	C
23	5153	Mahesh Maheshbhai Patil	19	A
24	5154	Maheshkumar Atmakumar Jaiswal	20	B
25	5155	Maheshkumar Manojbhai Patil	40	-
26	5156	Mangesh Maheshkumar Prangali	28	A
27	5157	Mangesh Dattatraya Patil	28	A
28	5158	Mangeshkumar Dattatraya Patil	28	A
29	5159	Nandkishor Maheshbhai Patil	24	C
30	5160	Nandkishor Dattatraya Patil	29	A

Note: Out of 30 students only 28 students are successfully completed the course and get certificate.





Add On Course "Manufacturing of Synthetic Dyes"





SIR P. T. SCIENCE COLLEGE, MODASA

Maintained by
THE MUGANTHI HIGHER EDUCATION SOCIETY, MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (UGC DDM) by NAAC to the 2nd Cycle

Status awarded by UGC, INDIA

12th Grade (HIGHER SECONDARY) by SEC (Govt. of Gujarat)

ADD-ON COURSE

"Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

Certificate

This is to certify that Bhuvan Tejendra H.

Class B.Sc., Semester III, Roll No. 5122 has
successfully completed 30 hours Add on Course
"Manufacturing of Synthetic Dyes-2024"
which was organized by Department of Chemistry
from 01-01-2024 to 20-01-2024 at college campus.



Prof. M. K. Vaidya
Course Coordinator
Date: 25/01/2024
Place: Modasa



Dr. D. N. Patil
HOD, Dept. of Chemistry

Signature of Head of Institution
Dr. D. N. Patil
Principal, Sir P. T. Science College
Modasa-388715, Dist. Lavaj



Dr. D. N. Patil
Principal

Place:
Sir P. T. Science College
Modasa-388715, Dist. Lavaj

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by
THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Panna University, Panna
Accredited with UGC Grade (2A) (CIPA) by UAM in the 2nd cycle

Status awarded by UBE, AICTE

A¹ Grade (CIPA 2014) by AACSB (Govt. of Gujarat)

ADD ON COURSE

"Manufacturing of Synthetic Dyes"

Organized by Department of Chemistry

Certificate

This is to certify that Darshil Khushi J.
Class 3rd, Semester VI, Roll No. 5143 has
successfully completed 30 hours Add on Course
"Manufacturing of Synthetic Dyes-2024"
which was organized by Department of Chemistry
from 01-01-2024 to 20-01-2024 at college campus.


Dr. P. P. Vaidya
Course Coordinator
Date: 21/01/2024
Place: Modasa


DR. DARSHIL KHUSHI
HOD, Dept. of Chemistry
Date: 21/01/2024
Place: Modasa


Dr. P. P. Vaidya
Principal
Sir P. T. Science College
Modasa-380015 Dist. Anand

**"ADD ON COURSE ON: "WATER ANALYSIS OF DIFFERENT AREAS OF
MODASA TALUKA"-2022**

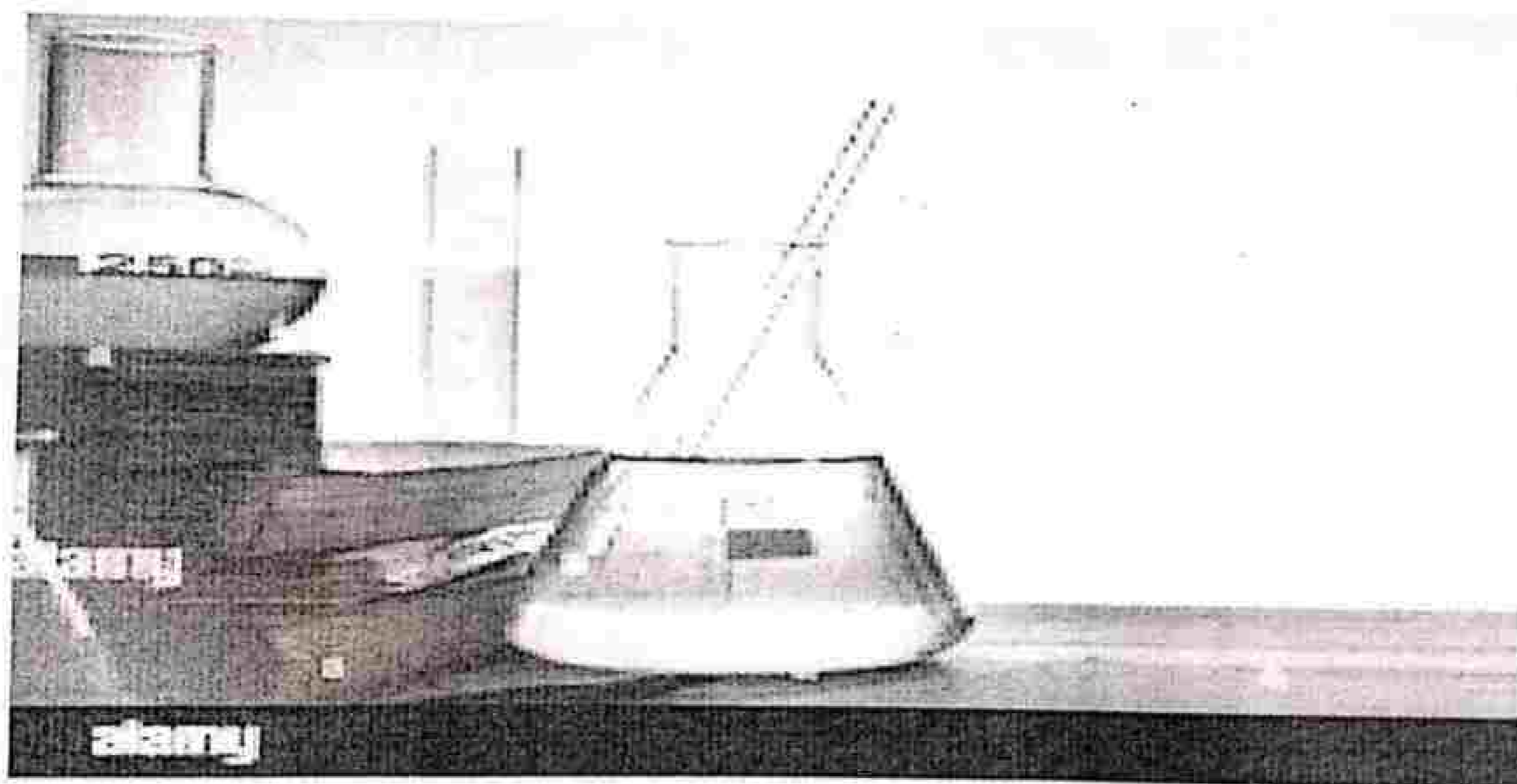
**Organized by
Department of Chemistry**

SIR P.T. SCIENCE COLLEGE, MODASA

Batch – I

**Duration: 30 Hours
Number of total students: Maximum 30**

Date: 05-09-2022 TO 24-09-2022



Department of Chemistry

SIR P.T.SCIENCE COLLEGE,MODASA




**Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.**



SIR P. T. SCIENCE COLLEGE, MODASA

**ADD ON CERTIFICATE COURSE
ON
PHYSICOCHEMICAL PROPERTIES OF GIVEN
WATER SAMPLE IN MODASA TALUKA
(EFFECTIVE FROM THE ACADEMIC SESSION 2022-23)**



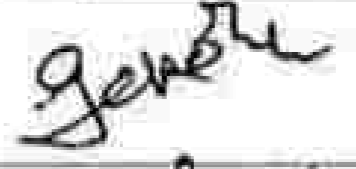
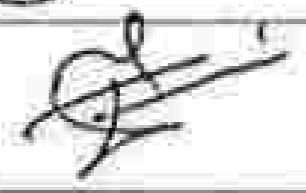


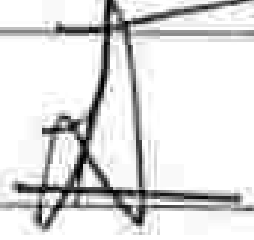
**P.G. CENTER IN CHEMISTRY
DEPARTMENT OF CHEMISTRY**



SIR P.T. SCIENCE COLLEGE, MODASA

Minutes

A meeting of the committee consisting by the following members was held on 01-08-2022 Monday at 02:00pm to prepare the syllabus of add on course by Chemistry Department to be started in the college. The following members were present in this meeting. The attached syllabus of 30 hours "ADD ON COURSE ON: "WATER ANALYSIS OF DIFFERENT AREAS OF MODASA TALUKA"-2022 is approved by this committee after intensive discussion and principal also suggested Dr. J.N.Patel, chemistry department as course coordinator.

Sr. No.	Name of Members	Designation	Signature
1	Dr. K.P.PATEL	Principal	
2	Dr. S.D.VEDIYA	Head of the Botany Department	
3	Dr. G.L.VEKARIA	IQAC Coordinator	
4	Dr. D.R.FUDANI	Head of the Chemistry Department	
5	Dr. R.H.PARMAR	Head of the Physics Department	
6	Dr. S.V.PATEL	Associate Professor	
7	Dr. J.N. PATEL	Assistant Professor	




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

Course Objectives:

Due to importance and essentiality of Drinking water in our life. As a students of science faculty, it is their prime duty to aware the people of society about drinking water quality and importance of water in every one life. The main object of this course is that each student of science must know the quality parameters of drinking water and how it will measure and also how to improve the quality of drinking water in particular area. It will be more useful for students and also the people of society who are not aware about drinking water qualities.




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SYLLABUS FOR ADD ON COURSE ON PHYSICO CHEMICAL PROPERTIES OF GIVEN SAMPLE IN MODASA TALUKA

CONTACT HOURS : 480 HOURS (20 DAYS)

CONTINUOUS ASSESMENT : 50 Marks

Unit-1: Water sources and pollution

Sources of water. Meaning of pure water Impurities in water Meaning of the terms Portability, Sewage, Affluent, Sample, Contamination, Eutrophication, Pollutants, Pollution Sources of water pollution. Major water pollutants. Types of water pollution: Ground water pollution. Fresh water pollution, Surface water pollution (River pollution, Pond and Lake pollution), Marine pollution (Oil Spills)

Unit II: Water analysis-I

Water Quality parameters: Physical parameters, Chemical parameters, Bacteriological parameters. Hardness of water: Formation of hard water, Types of hardness, Degree of hardness, Units of hardness Determination of hardness: Soap solution method. Complexometric titration method using EDTA. Disadvantages of hard water: Domestic purposes, Industrial purposes. Alkalinity of water. Types of Alkalinity, Significance of Alkalinity, Estimation of Alkalinity.

Unit-III: Water Analysis-11

Dissolved oxygen, Biological Oxygen Demand, Chemical Oxygen Demand. Total Solids. Determination of Chlorides by Argentometric method. Determination of Fluorides by SPADNS method. Determination of Nitrate by Phenol Disulphonic method. Determination of Sulphate by Gravimetric method. Determination of Dissolved Oxygen by Winkler's method

Unit-IV: Municipal Water and Waste Water Treatment Techniques

Municipal Water: Specifications for Drinking water. Treatment of water for Domestic purposes. Pre-treatment, Removal of Suspended impurities, Method of Disinfection of water Wastewater: Introduction, Characteristics of Wastewater, need for Wastewater treatment. Preliminary treatment Grit Chamber, Floatation, Skimming Tank, Screening Treatment: Sedimentation, Coagulation, Secondary treatment: Aerobic (Trickling filter, Activated sludge, Oxidation ponds and Lagoons), Anaerobic (Septic tank, Sludge digestion and Disposal). Tertiary treatment: Aim, Need for Chlorination, Dose of chlorine, Ozonation

Recommended books :

1. Engineering chemistry: Wiley second edition
2. Environmental science, S.C. Santra, New Central Book Agency
3. A text book of environmental studies; D.K. Asthan, S. Chand & Camp Ltd.
4. Environmental studies, Dr. K. Mukkanti, S. Chand & Camp Ltd.
5. Water and waste water engineering, R.C. Rangwala
6. Water and wastewater engineering (Vol. II) Fair/ Geyer/ Okum
7. Methodology of water analysis; M.S. Kodarkar, IAAB Publication, Hyderabad
8. Wastewater engineering: Metcalf and Eddy, Inc. Pub
9. Chemical and biological method for water pollution, R.K. Trivedi and P.K. Geol, Environ: Pub




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"ADD ON COURSE ON: Water Analysis of Different Areas of Modasa Taluka"-2022

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 05-09-2022 TO 24-09-2022

Batch - I

Registration Details

No.	Roll No.	Student Name	Class	Signature
1	5743	Devda Rohankumar mahabadi	B.Sc sem-5	R.M.M
2	5245	Pragyapati Seegadhbhai Manubhai	B.Sc sem-5	S.M.P
3	5168	Patel Rimuben Devendrabhai	B.Sc sem-5	R.D.P
4	5101	Patel Anshu Jitendrakumar	B.Sc sem-5	Anshu
5	5159	chandrakshi Prashiben manishkumar	B.Sc sem-5	P.M.C
6	5205	Rod Ankit Kumar vallaibhai	B.Sc sem-5	Ankit
7	5130	Damod Jimeshkumar Akhatar	B.Sc sem-5	hig
8	5202	Damod Anu. Sombhavi	B.Sc sem-5	A.J.D
9	5204	Ravesh Aniket vikramsinh	B.Sc sem-5	A.V.P
10	5121	Jayshul Dil. narashbhai	B.Sc sem-5	J.N.D
11	5224	Patel chetani Kantibhai	B.Sc sem-5	S.K.Patel
12	5222	Patel Gopi Ashishbhai	B.Sc sem-5	G.A.Patel
13	5228	Patel Harvi Rameshbhai	B.Sc sem-5	H.P.Patel
14	5175	Parsi Shital Prashantbhai	B.Sc sem-5	Shital
15	5180	Mansuri Tarannumbanu Sirajhuseen	B.Sc sem-5	M.S.
16	5171	Patel Rutva Mukeshbhai	B.Sc sem-5	Rutva
17	5103	Acharya Ameer J.	B.Sc sem-5	Acharya
18	5127	Patel Humi D.	B.Sc sem-5	Humi
19	5140	Panchani Ritli K	M.Sc sem-2	P.P
20	5116	Khant Dharmesh R.	B.Sc sem-5	D.R.KHANT
21	5201	chandrakshi Abhilaalhai V	B.Sc sem-5	C.A.V
22	5172	Bandi Sabihaben G.	B.Sc sem-5	S.G.B
23	5237	Musar payalben P	B.Sc sem-5	Payal
24	5189	Patel Aniket	B.Sc sem-5	
25	5127	Kazi Izzatkhatoon M	B.Sc sem-5	I.K.
26	5151	chaturham Nimishu J	B.Sc sem-5	N.J.
27				
28				
29				
30				



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"ADD ON COURSE ON: Water Analysis of Different Areas of Modasa Taluka"-2022

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE, MODASA

Date: 05-09-2022 TO 24-09-2022

Registration Form

1. Name of Student: chauhan Nimishakumvar Jitemdasinh
2. Address: At-Po-Nandisam, Tal-Modasa, Dist-Aravalli
3. E-mail ID: chauhannimishakumvar@gmail.com
4. Mobile Number: 9849827748
5. Semester of Study: 05
6. Subject: Chemistry
7. Roll No: SISI
8. Academic Year: 2022-23
9. Enrollment No: BSC0082057699
10. Average of SGPA of all previous semesters: 7.5

Date:

Place: Modasa

Signature of Student

Nimishakumvar



[Signature]
Principal
Sir P. T. Science College
Modasa-383315, Dist. Aravalli.



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**“ADD ON COURSE ON: “WATER ANALYSIS OF DIFFERENT AREAS OF MODASA
TALUKA”-2022**

Organized by Department of Chemistry
SIR P.T. SCIENCE COLLEGE, MODASA

Date: 05-09-2022 TO 24-09-2022

Programme

Date	Time	Activity	Name of Expert
05/09/2022	8.0 am to 9.0 am	Introduction of course	Principal & Chemistry Staff
06/09/2022	8.0 am to 10.0 am	Theory	Dr.J.N.Patel Dr.S.V.Patel.
07/09/2022	8.0 am to 10.0 am	Practical	Dr.J.N.Patel
08/09/2022	8.0 am to 10.0 am	Theory	Dr.J.N.Patel Dr.S.V.Patel.
09/09/2022	8.0 am to 10.0 am	Practical	Dr.J.N.Patel
10/09/2022	8.0 am to 10.0 am	Theory	Dr.S.V.Patel. Dr.D.R.Fudani
13/09/2022	8.0 am to 10.0 am	Practical	Dr.S.V.Patel.
14/09/2022	8.0 am to 10.0 am	Theory	Dr.M.P.Gongiwala Dr.J.N.Patel
15/09/2022	8.0 am to 10.0 am	Practical	Dr.J.N.Patel
16/09/2022	8.0 am to 10.0 am	Theory	Dr.J.N.Patel Dr.S.V.Patel.
17/09/2022	8.0 am to 10.0 am	Practical	Dr.J.N.Patel
20/09/2022	8.0 am to 10.0 am	Theory	Dr.S.M.Dave Dr.J.N.Patel
21/09/2022	8.0 am to 10.0 am	Practical	Dr.S.M.Dave
22/09/2022	8.0 am to 10.0 am	Theory	Dr.J.N.Patel Dr.S.V.Patel.
23/09/2022	8.0 am to 10.0 am	Practical	Dr.M.P.Gongiwala
24/09/2022	8.0 am to 10.0 am	Exam	Dr.J.N.Patel

Note: After successfully completion of course certificate will be provided to each student online/Offline mode.




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- **Process of Continuous Assessment and Grading**

It will be based on the following :

- Attendance of the students
- Continuous assessment in both theoretical and physical
- Multiple Choice Question
- Viva – Voce
- Project report

- **Examination Pattern :**

- Multiple Choice Question - 30 Marks
- Viva – Voce - 10 Marks
- Project Report and Presentation – 10 Marks
- Total Marks : 50 Marks




Principal
Sir P. T. Science College

Results :

- 1) PH :
- 2) Conductivity :
- 3) T.D.S :
- 4) ppm of Mg^{+2} :
- 5) ppm of Ca^{+2} :
- 6) ppm of CO_3^{-2} :
- 7) ppm of HCO_3^{-2} :
- 8) Ppm of Cl^- :
- 9) ppm of SO_4^{-2} :
- 10) ppm of D.O. :
- 11) ppm of C.O.D. :



Aim : Water analysis of given water sample

1) pH :

2) Conductivity :

3) Total dissolved solids :

Process:

Take 250ml beaker and clean it by distilled Water and dry it with help of drien. Now weight it Actuality. Take 50 ml water sample in the beaker and Evaporate the near dryness. Now weight it and Calculate the total dissolved solids.

Calculation :

- 1) Weight of empty beaker :
- 2) Weight of beaker + T.D.S :
- 3) Weight of T.D.S. = gm
= gm
= + T.D.S in 50ml sample
= gm in 1000ml solution

Now, ppm of T.D.S = x 1000
= mg/L



4) Determination of Mg^{+2}

Requirements :

1. 0.01 N EDTA
2. 10 PH buffer solution
3. Eriochrom Black-T

Process: Take 25 ml water sample and add 0.5 ml D.W. in a conical flask add 5 ml 10 PH buffer solution add pinch of EBT as an indicator colour change will be red to blue

Observation:-

Burette : 0.01 N EDTA
Conical flask : 25 ml water sample +25 ml
Distilled water + 10 PH buffer Solution
Indicator : Eriochrom Black - T
Colourchange : Red to blue

Observation table :

Burette reading	I	II	III	constant
Final				
Intial				
Differences				

Calculation:

$Mg^{+2} =$

For Mg^{+2} , 1000ml 1M EDTA = 24.305 gm Mg^{+2}
ml 0.01M EDTA = ?

= gm Mg^{+2} / 25 ml W.s.

ppm of $Mg^{+2} =$ x 40 mg/L



(6) determination of CO_3^{2-} and HCO_3^{2-}

- Requirements :
1. 0.05 N HCL
 2. Methyl orange
 3. phenolphthelin

Process:

Take 50ml water sample in a conikal flask Add 5 drops phenolphthaline as an Indicator colour change will be pinch. The colourless when it titrat against 0.05 N HCL . Then add methyl orange as indicator in the conical flask. The colour change will be yellow .Now titrate it against 0.05 N Hcl at the end point the yellow colour change will be yellow to orange.

Observation:

- Burette : 0.05 N HCl
Conical flask : 50 ml water sample + indicator
Indicator : phenolphthelin, methyl orange
Colour change : pink to colourless
Yellow to orange

Observation table:

Burette Reading	I.		II		III.		Constant
	P	M	P	M	P	M	
final							
intial							
differences							

Calculation :

For CO_3^{2-} =
For HCO_3^{2-} =
=



8) Determination of SO_4^{2-} :

Requirements : 1. 0.01M EDTA
2. BaCl_2
3. xylenol orange

Process :

Sample reading:

Take 25ml water sample in a conical flask then add 10ml 5% BaCl_2 heat the solution about 10 min and cool it. Now add xylenol orange indicator titrate it against 0.01M EDTA at the end point colour change will be red to yellow.

Blank reading :

Take 10 ml 5% BaCl_2 then heat 3-4 min cool it and add xylenol orange indicator and titrate it against 0.01M EDTA at the end point the colour change be red to yeallow

Observation:

Sample reading :

Burette : 0.01M EDTA
Conical flask : 25ml W.s. +10ml 5% BaCl_2 +
Indicator
Indicator : xylenol orange
Colourchange: red to yellow

Observation table:

Burette reading	I	II	III	Constant
Final				
Intial	0.0	0.0	0.0	
Differences				



9) Determination of dissolve oxygen :

- Requirements :**
1. Orthophosphoric acid
 2. winkler 'A'
 3. winkler 'B'
 4. 0.01M $\text{Na}_2\text{S}_2\text{O}_3$
 5. 10% KI

Process :

Take reagent bottle complitly filled with W.S. and 1ml winkler 'A' and Winkler 'B' shakewell the bottle when they settle down The ppt for 15min then add 2ml orthophosphoric acid till ppt is dissolved. How take 50 ml solution in a conical flask add 10ml 10% KI and add starch solution as an indicator titrate it against 0.01M $\text{Na}_2\text{S}_2\text{O}_3$ at the end point violet to colourless.

Observation :

Burette : 0.01M $\text{Na}_2\text{S}_2\text{O}_3$ solution
Conical flask : 50ml w.s. + 10ml 10% KI
Indicator : starch
Colour change: violet to colourless

Observation table :

Burette reading	I	II	III	Constant
Final	0.5	0.5	0.4	
Intial	0.0	0.0	0.0	0.5
Differences	0.5	0.5	0.4	

Calculation :

1000ml 1N $\text{Na}_2\text{S}_2\text{O}_3$ = 8.0 oxygen
0.5 ml .01N $\text{Na}_2\text{S}_2\text{O}_3$ = (?)
=

Ppm of D.O =



10) Determination of Chemical Oxygen Demand :

Requirements : 1. 0.05N $K_2Cr_2O_7$ solution
2. 0.25N $FeSO_4(NH_4)_2SO_4$
3. orthophosphoric acid
4. Mercuric acid
5. 0.25N Ferrous Ammonium sulphate
6. Ferroin

Process:

Transfer 10ml of sample in $HgCl_2$ of reflux unit this add 10 ml 0.25N potassium di-chromate solution pinch of each silver sulphate and mercuric sulphate and 30ml of sulphuric acid. After attaching labing condenser to the mouth of flask heat the flask in a hot water bath on heating for at nearly to 2 hour to refluxe the contents Cool the flask deficient at form units and dilute it contents of nearly 150ml by adding D.W. and take 10ml solution. Then add 2-3 drops of ferroin indicator solution Now titrate the solution against 0.25N Ferrous Ammonium sulphate solution at the end point blue green colour of constant gets changed the reddish blue run to in nearly a distilled water blank in similar manner

Observation:

Sample reading:

Burette : 0.25N ferrous Ammonium sulphate
Conical flask : 10 ml 0.25N $K_2Cr_2O_7$ solution +
Silver sulphate + mercuric sulphate
+30ml H_2SO_4 +150ml D.W.
Indicator : Ferroin
Colour change : Blue green to Reddish brown



"ADD ON COURSE ON "WATER ANALYSIS OF DIFFERENT AREAS OF MODASA TALUKA"-2022

Organized by Department of Chemistry

SIR P. T. SCIENCE COLLEGE, MODASA

Date: 05-09-2022 TO 24-09-2022 Attendance Sheet (Theory)

No	Roll No	Name	5/9/22	6/9/22	8/9/22	10/9/22	14/9/22	16/9/22	20/9/22	22/9/22	24/9/22
1	5243	Devda RohanKumar M	P	P	A	P	A	P	A	P	P
2	5245	Prajapati Sagar M	P	P	P	A	P	A	P	A	P
3	5168	Patel Reema D	P	P	A	A	P	A	P	P	P
4	5101	Patel Aastha J	P	P	P	A	P	A	P	P	P
5	5159	Chaudhari Prachi M	P	P	A	P	P	A	P	P	P
6	5205	Rot Ankit Kumar v	A	A	A	P	P	P	P	P	P
7	5136	damor Jignesh Kumar	A	P	A	P	P	P	P	P	P
8	5295	damor Ajay Kumar s	A	A	A	P	P	P	P	P	P
9	5204	Rawat Aniket n	P	P	A	P	P	P	P	A	P
10	5121	Jaiswal deep n	A	P	A	P	P	P	P	P	P
11	5214	Patel charmi k	P	P	A	P	P	P	P	P	P
12	5222	Patel Gopi a	P	P	A	P	P	P	P	P	P
13	5228	Patel harvi r	A	P	A	P	P	P	P	P	P
14	5175	paagi Shital r	A	P	A	P	P	P	P	P	P
15	5180	mansuri tarnnum s	P	P	A	P	P	P	P	P	P
16	5171	Patel rutva m	P	P	A	P	P	P	P	P	P
17	5103	Acharya Ameer J	P	P	A	P	P	P	P	P	P
18	5127	Patel Hani D	A	P	A	P	P	P	P	P	P
19	5140	Ranchal Riddhi k	A	P	A	P	P	P	P	P	P
20	5116	Khant Dharmesh r	P	P	A	P	P	P	P	P	P
21	5201	Chauhan Abhilasha v	A	P	A	P	P	P	P	P	P
22	5172	Bandi S abiha bahan.g	P	P	A	P	P	P	P	P	P
23	5237	MasarPayalban p	A	P	A	P	P	P	P	P	P
24	5127	kaji ilzaKhaton M	P	P	A	P	P	P	P	P	P
25	5151	Chauhan nimisha j	A	P	A	P	P	P	P	P	P
		Chauhan nimisha j									



Principal
Sir P. T. Science College
 Modasa-383315, Dist. Anand

"ADD ON COURSE ON "WATER ANALYSIS OF DIFFERENT AREAS OF MODASA TALUKA"-2022

Organized by Department of Chemistry
SIR P.T.SCIENCE COLLEGE,MODASA

Date: 05-09-2022 TO 24-09-2022 Attendance Sheet (Practical)

No.	Roll No	Name	7/9/22	9/9/22	13/9/22	15/9/22	17/9/22	21/9/22	23/9/22	24/9/22
1	5243	Devda RohanKumar M	P	A	P	A	P	A	P	P
2	5245	Prajapati Sagar M	P	P	P	A	A	P	A	P
3	5168	Patel Reema D	P	P	A	P	P	A	P	P
4	5101	Patel Aastha J	P	A	P	P	A	A	P	P
5	5159	Chaudhari Prachi M	P	P	A	A	P	P	A	P
6	5205	Rot Ankit Kumar v	P	A	P	P	P	P	A	P
7	5136	damor Jignesh Kumar	P	A	P	A	P	P	A	P
8	5295	damor Ajay Kumar s	P	A	P	P	P	P	A	P
9	5204	Rawat Aniket n	A	P	P	P	A	A	P	P
10	5121	Jaiswal deep n	P	A	P	P	A	A	P	P
11	5214	Patel charmi k	P	P	A	P	A	A	P	P
12	5222	Patel Gopi a	P	A	P	A	A	P	P	P
13	5228	Patel harvi r	P	P	P	P	A	P	P	P
14	5175	paagi Shital r	P	A	P	P	P	P	P	P
15	5180	mansuri tarannum s	P	P	P	P	A	P	P	P
16	5171	Patel rutva m	P	A	P	P	P	P	P	P
17	5103	Acharya Ameer J	P	P	A	A	P	P	A	P
18	5127	Patel Hani D	P	A	P	A	P	P	P	P
19	5140	Panchal Riddhi k	P	A	P	P	P	P	P	P
20	5116	Khant Dharmesh r	P	A	P	P	P	P	P	P
21	5201	Chauhan Abhilasha v	P	A	P	P	P	P	P	P
22	5172	Bandi Sreelika bahan g.	A	P	A	P	P	A	P	P
23	5237	MasarPayalban p	P	A	P	A	P	A	P	P
24	5127	kaji ilzaKhaton M	P	P	P	P	A	P	P	P
25	5151	Chauhan nimisha j	P	A	P	A	P	P	P	P
Signature of Teacher										




 Principal
 Sir P. T. Science College
 Modasa-383015 Dist. Amnli.



SIR P. T. SCIENCE COLLEGE, MODASA

Managed by
The M. L. Gandhi Higher Education Society, Modasa

Programme :- ADD ON COURSE ON WATER ANALYSIS OF DEFFERENT AREA OF MODASA TALUKA 2022

Place :- DEPARTMENT OF CHEMISTRY MODASA

Date :- 25/02/2022

Time:- 45 MIN.

Name Coordinator:- DR JAYSHREEBEN PATEL

ATTENDACE SHEET (Test Exam)

NO	NAME	semester	MOBILE NUMBER	SIGNATURE
1.	Jayswal Dip. N.	B.Sc. sem-IV	9737143845	D.N. Jayswal
2.	Prajapati Saagar M	B.Sc sem-IV	9664607952	S.M.P
3.	Khavnt Dharamesh R.	B.Sc sem-IV	6352359750	D.R. KHAVNT
4.	Samor Ajay. S	B.Sc. sem-IV	8752065175	Samor
5.	Samor Jignesh. A	B.Sc sem-IV	9580534187	Jignesh
6.	Rat Ankit V.	B.Sc sem-IV	9638565004	Ankit
7.	Devda Rohan M.	II	9724596844	Rohan
8.	Ravrat Aniket V.	II	8238328465	A.R. Ravrat
9.	Acharya Amee J.	II	9664905178	Acharya
10.	Patel Hami D.	"	6352956222	Hami
11.	Patel Harvi R.	II	9313861870	H.R. Patel
12.	Mensuri Tarannum S.	II	9426555838	Tarannum
13.	Patel Chasmi K.	II	8160247907	C.K. Patel
14.	Patel Gopi A.	II	6354916515	G.A. Patel
15.	Patel Rutva M.	II	9313668136	Rutva
16.	Patel Rimca D	II	6355907758	R.D.P
17.	Chaudhary Poochi M	"	9909768478	P.M.C
18.	Patel Anshu J	II	7434926366	Anshu

Principal

Sir P. T. Science College
Modasa, Gujarat, India.

Principal
Sir P. T. Science College, Modasa



19	Pargi Shital R	Bsc. sem-5	5758568834	Shital.
20	Panchal Pijli K	"	9265866056	Pp
21	Kelzi Liza khatun	"	806955511	Kelzi
22	Bunji Sabihaben G.	"	9426391140	S.G.B
23	Masur Piyal P.	"	9328219920	Piyal
24	Chandhan Dhilesh.V	"	9978247425	CA.V
25	Kelji ILZokhuelum	"	9426535838	Kelzi

Principal
 Sir D T Science



Name : charukum
B.Sc. Sem - 2
kmo :- jayswal. Dip. N.
Roll No - 5121

22
30

ADD ON COURSE ON : Water Analysis of different areas of Modasa Taluka-2022
Organized by department of chemistry

Sir P. T. Science College Modasa
Date-25/09/2022

Q.1. The purest form of natural water is

- River water
- Sea water
- Underground water
- ✓ Rain water

Q.2. The alkaline hardness of water is due to the presence of the following salts of calcium and magnesium in water.

- ✓ HCO_3^- only
- HCO_3^- and CO_3^{2-} only
- SO_4^{2-} only
- HCO_3^- , CO_3^{2-} , and OH^- only

Q.3. A sample of water contains 120 mg of Mg^{2+} per liter. The hardness of the sample of water in terms of CaCO_3 equivalent is

- 120 mg/L
- ✓ 500 mg/L
- 250 mg/L
- 1000 mg/L



Q.7. The blow-down operation causes the removal of

- Scales
- Sludges
- Acidity
- Basicity

Q.8. Scale formation in boiler-feed water is due to

- Metallic deposition
- Corrosion in boilers
- Deposition of hard water
- All the above

Q.9. Scale formation is mainly due to which of the following salt present in boiler-feed water?

- CaSO_4
- MgCO_3
- Na_2SO_4
- KCl

Q.10. Solubility of CaSO_4 salt present in water



**"ADD ON COURSE ON "WATER ANALYSIS OF DIFFERENT AREAS
OF MODASA TALUKA"-2022**

Organized by Department of Chemistry

SIR P.T.SCIENCE COLLEGE,MODASA

Date: 05-09-2022 TO 24-09-2022

No	Roll No	Name	Obtained marks	Grade
1	5743	Devda RohanKumar M	23	B
2	5245	Prajapati Sagar M	22	B
3	5168	Patel Reema D	24	B
4	5101	Patel Aastha J	23	B
5	5159	Chaudhari Prachi M	24	B
6	5205	Rot Ankit Kumar v	23	B
7	5136	damor Jignesh Kumar	19	C
8	5295	damor Ajay Kumar s	24	B
9	5204	Rawat Aniket n	20	B
10	5121	Jaiswal deep n	22	B
11	5214	Patel charmi k	22	B
12	5222	Patel Gopi a	23	B
13	5228	Patel harvi r	25	A
14	5175	paagi Shital r	21	B
15	5180	mansuri tarannum s	22	B
16	5171	Patel rutva m	24	B
17	5103	Acharya Ameer J	20	B
18	5127	Patel Hani D	22	B
19	5140	Panchal Riddhi k	21	B
20	5116	Khant Dharmesh r	22	B
21	5201	Chauhan Abhilasha v	29	A
22	5172	Bandi Shabina bahan g	25	A
23	5237	MasarPayalban p	30	A
24	5127	kaji ilzaKhaton M	24	B
25	5151	Chauhan nimisha j	25	A

Obtained Marks out of 30	Grade
25-30	A
20-24	B
15-19	C
≥ 14	F

Summary of Result: Out of 25 students 25 students have completed successfully this Add on Course



[Signature]
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Sir P. T. Science College
Modasa-383315, Dist. Arvalli.



SIR P.T. SCIENCE COLLEGE, MODASA

Managed by
THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan

ADD ON COURSE

Organized by Chemistry Department

“WATER ANALYSIS OF DIFFERENT AREAS
OF MODASA TALUKA”-2022

Certificate

This is to certify that «Students Name» Class B.Sc., Semester-V, Roll No. «Roll No» has successfully completed 30 Hours Add on Course “WATER ANALYSIS OF DIFFERENT AREAS OF MODASA TALUKA”-2022 which was organized by Department of Chemistry from 05-09-2022 TO 24-09-2022 at college campus.

Dr. J.N. PATEL
Course Co-Ordinator

Dr. D.R. FUDANI
HOD, Dept. of Chemistry

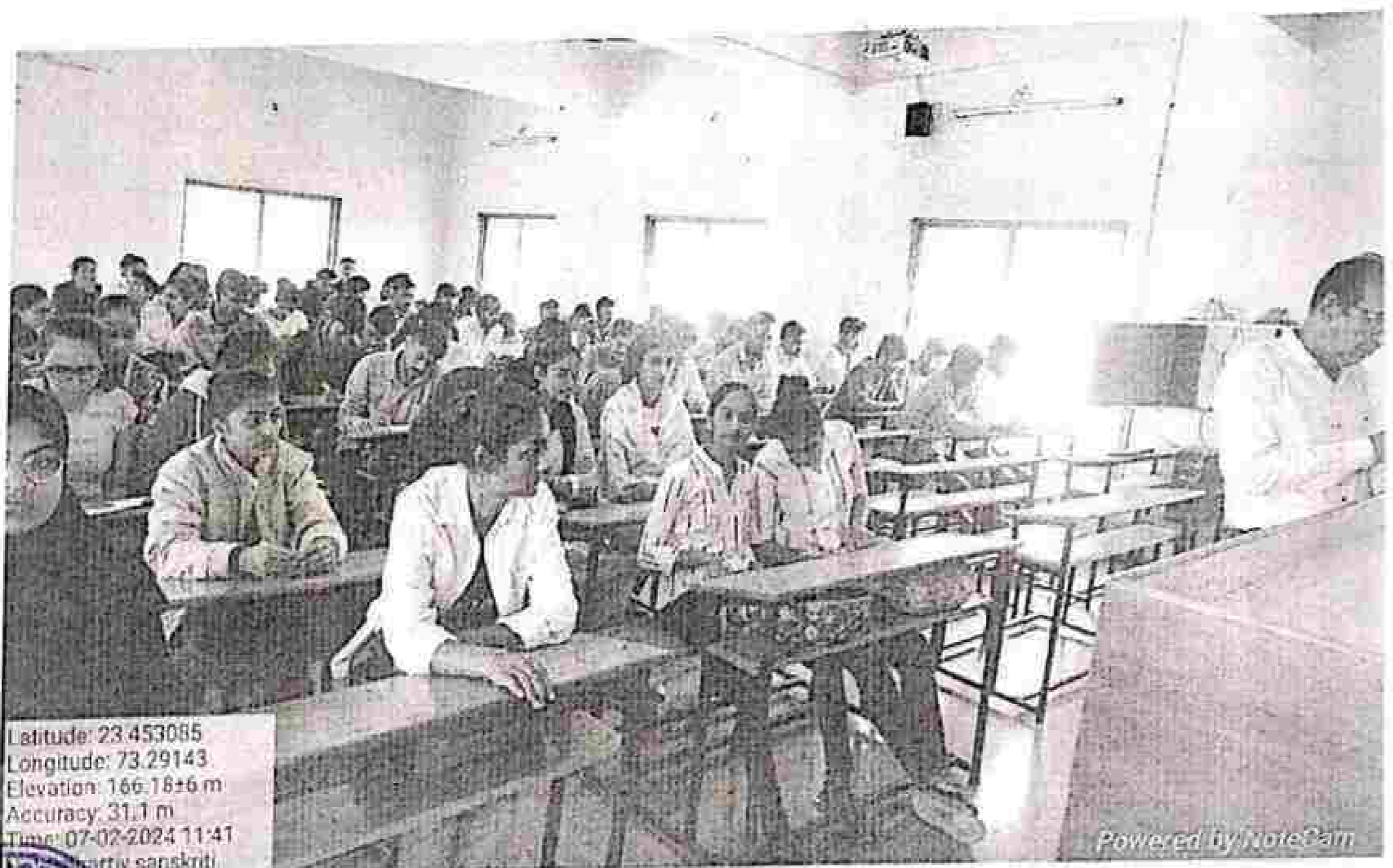
Dr. K.P. PATEL
Principal

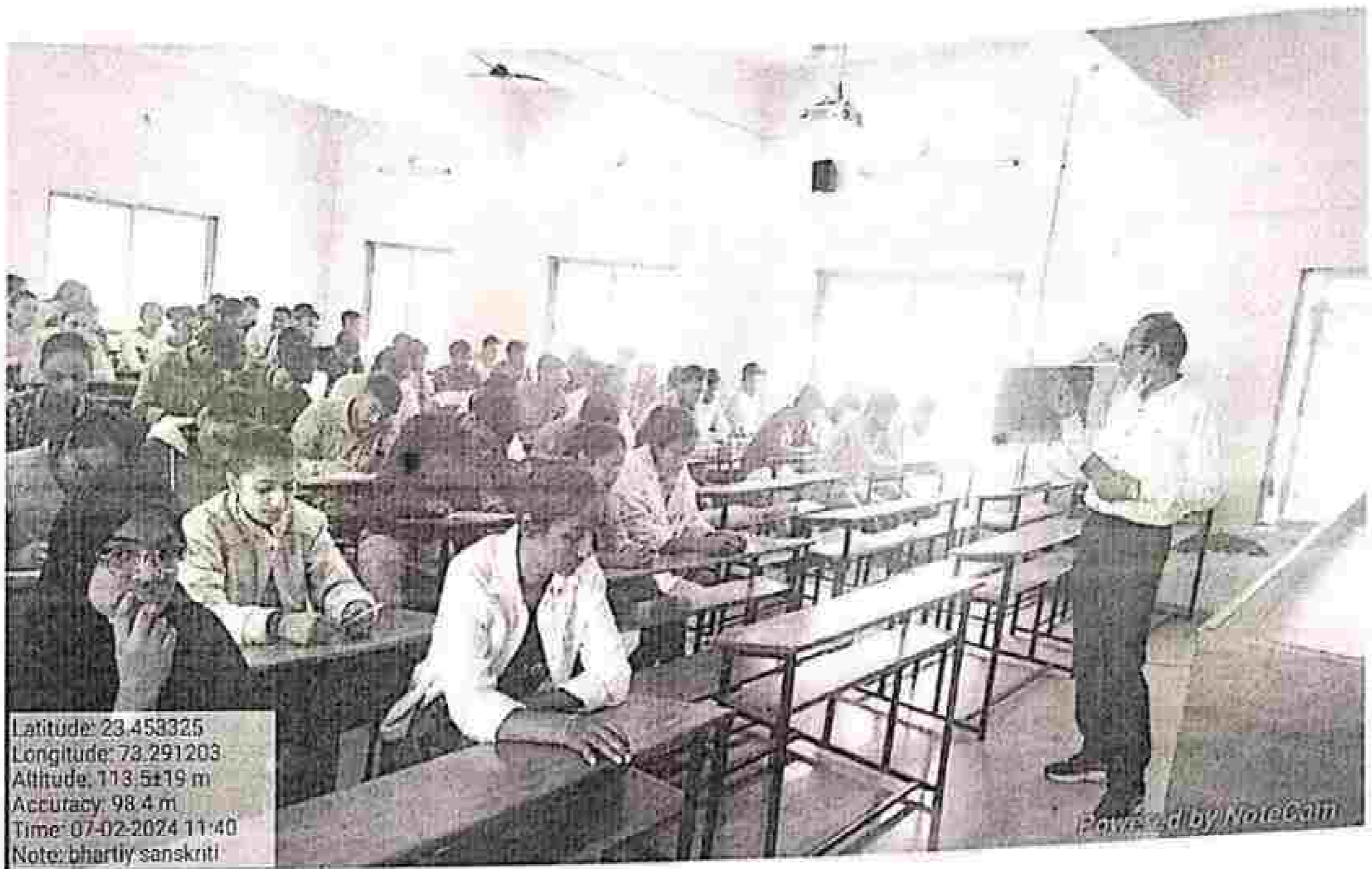
Date: 25/09/2021

Place: MODASA




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.





Latitude: 23.453325
Longitude: 73.291203
Altitude: 113.5±19 m
Accuracy: 98.4 m
Time: 07-02-2024 11:40
Note: bhartiya sanskriti

Powered by NoteCam



Time: 07-02-2024 11:40
Note: bhartiya sanskriti

Powered by NoteCam



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Affiliated to Hemchandracharya North Gujarat University,
Patan

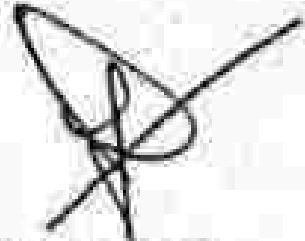
ADD ON COURSE


Organized by Chemistry Department


"WATER ANALYSIS OF DIFFERENT
AREAS OF MODASA TALUKA"-2022

Certificate

This is to certify that _____
Class B.Sc., Semester-V, Roll No _____ has
successfully completed 30 Hours Add on Course
"WATER ANALYSIS OF DIFFERENT AREAS OF MODASA
TALUKA"-2022 which was organized by Department
of Chemistry from 05-09-2022 TO 24-09-2022 at college
campus.


Dr. J.N. PATEL
Course Co-Ordinator


SEAL
CHEMISTRY DEPARTMENT
SCIENCE DE. DR. P. T. MODASA
HOD, Dept. of Chemistry


Principal
Dr.K.P.Patel

Date: 25/09/2021



Place: MODASA



**ADD-ON
CERTIFICATE COURSE
IN
MATHEMATICS FOR COMPETITIVE EXAMS
(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)**

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-38315**

Course Type: Add-On Certificate Course

Course Name: Mathematics for Competitive Exams

Course Code: MATAD01

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: The prime objective of the course is to gain knowledge and understanding of the fundamental concept, principal and techniques of basic mathematics.

Course Description: The course is best suited for students preparing for different entrance exams.

Details of Course:

Paper	Total Marks -50	Passing Marks
Mathematics for Competitive Exams	Attendance -10 Marks MCQ based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Mathematics for Competitive Exams"

Prepared by

Department of Mathematics

Sri P. T. Science College, Modasa

Course Co-Ordinator: Dr. K. N. Darji

Year: 2023-24

Date: 18-08-2023 to 28-08-2023

Unit 01: Set Theory

- Different types of sets
- Operations on sets
- Venn-Diagram
- Different Relations

Unit 02 : Functions

- Different types of functions
- One-One functions.
- Onto functions
- Injective - Bijective functions

Unit 03: Trigonometry

- Identities and ratio
- Heights and Distances

Unit 04: Co-ordinate Geometry

- Co-ordinate Geometry

Books for Reference:

1. Set theory and related topic by Seymour Lipschutz, Mc Graw Hill book, Singapore.
2. B. V. Mass, A text book of Engineering Mathematics, Eastern Publishing House, 12 Edition 2003, Mumbai, India.

Course Outcomes:

Students get knowledge about mathematical rules, formulae and techniques used for competitive examination. Students were aware with the short tricks to solve the problems asked in competitive examination which are time consuming by its usual methods of solving them.

Sir P.T.Science College, Modasa

Add on course:- Mathematics for Competative Exams

Sr.No.	Roll No	Student Name	Gender	Sign
1	5401	Bhageerathuloh Ishwarsinh Parmar	Male	<i>Bhageerathuloh</i>
2	5402	Bhargav Mahendrakumar Kotwal	Male	<i>Bhargav</i>
3	5403	Dashrathbhai Pratapbhai Parmar	Male	<i>D.P.P.</i>
4	5404	Dharuben Vinubhai Parmar	Female	<i>D.P.V.</i>
5	5405	Dhvanibahen Babubhai Panchal	Female	<i>Dhvanibahen B</i>
6	5406	Dilipkumar Chandubhai Malerlya	Male	<i>Dilip</i>
7	5407	Jagdishkumar Anantbhai Darnot	Male	<i>Jagdish</i>
8	5408	Jawharan Umangani Pahorchiya	Female	<i>Jawharan</i>
9	5409	Jeyabhen Shankarbhai Kothkar	Female	<i>Jeyabhen</i>
10	5410	Jyotsna Anantbhai Prajapat	Female	<i>Jyotsna B. Prajapat</i>



[Signature]
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Modasa-383315, Dist.Aravi

Sir P. T. Science College, Modasa

Add on course - Mathematics for Competitive Exams

Sl. No.	Subject Name	Module	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Pre-Calculus		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Algebra		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Geometry		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Trigonometry		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Calculus		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Statistics		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Probability		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P




 Sir P. T. Science College,
 Modasa-380114, District: Narmada



**ADD-ON
CERTIFICATE COURSE
IN
BASIC MATHEMATICS APTITUDE**

(EFFECTIVE FROM ACADEMIC YEAR 2023-2024)

Organized By

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383125**

Course Type: Add-On Certificate Course

Course Name: Basic Mathematics Aptitude

Course Code: MATAD02

Course Duration: 30 hours (Teaching will be conducted on week-end or in evening hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: The prime objective of the course is to remove the maths phobia prevalent in students and to generate their love for mathematics. The students and individuals who want to learn practical methods in order to become a maths whiz and gain a competitive edge.

Course Description: The course is best suited for students preparing for entrance exams where basic knowledge and mathematical techniques can help candidates to save valuable time and gain confidence in the examination. The course is also suited for students whose aim is to crack competitive examinations in which basic knowledge of mathematics is required.

Details of Course:

Paper	Total Marks -50	Passing Marks
Basic Mathematics Aptitude	Abundance: 10 Marks MCQ based items: 40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
90-100	Excellent-A+
80-89	Very Good-A
70-79	Good-B
60-69	Fair-C
Below 60	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Basic Mathematics Aptitude"

Prepared by

Department of Mathematics

Sri P. T. Science College, Madasa

Course Co-Ordinator: Dr. K. N. Darji

Year: 2023-24

Date: 01-09-2023 to 22-09-2023

Unit 01: Number System

- Numerals
- Face Value and Place Value of the Digits in a Number
- Types of Numbers
- Operations on Numbers
- Distributing Tests Unit's Place of an Expression
- Basic Number Theory
-

Unit 02: Number Series

- Types of Series
- Types of Questions Asked on Number Series

Unit 03: HCF and LCM

- Factors and Multiples
- Least Common Multiple (LCM)
- Highest Common Factor (HCF)
- Method to Calculate LCM and HCF of Fractions
- Fast Track Techniques to Solve the Questions
- Method to Solve Questions Based on Hells

Unit 04: Simple and Decimal Fractions

- Simple Fraction
- Decimal Fraction
- Operations on Simple Fractions
- Operations on Decimal Fractions
- Comparison of Simple Fractions
- Fast Track Formulae to Solve the Questions

Books for Reference:

1. R. S. Agarwal, *Quantitative Aptitude*, Sultan Chaud and Company Ltd, New Delhi, 2012
2. Abhinav Gupta, *Quantitative Aptitude for Competitive Examinations*, Mahesh Education, 2011.
3. Rajesh Verma, *Fast Track objective Arithmetic*, Abhinav Publication India Ltd

Course Outcomes:

Students get knowledge about mathematical rules, formulas and techniques used for competitive examinations. Students were aware with the short tricks to solve the problems asked in competitive examination which are done continuously by the usual methods of solving them.

Sir P.T.Science College, Modasa

Add on course:- Basic Mathematics Aptitude

Sr.No.	Roll No	Student Name	Gender	Sign
1	3411	Shubhleen Kishorlal Sharma	Female	
2	3412	Krupalben Rajendra Kumbhar	Female	
3	3413	Maheshkumar Kanchalal Patil	Male	
4	3414	Rohithra Dhanrajlal Varma	Male	
5	3415	Kuldeepkumar Kanchalal Patil	Male	
6	3416	Kanchalal Jagdishlal Patil	Male	
7	3417	Maheshkumar Dhanrajlal Kumbhar	Male	
8	3418	Maheshkumar Kanchalal Patil	Male	
9	3419	Maheshkumar Kanchalal Patil	Male	
10	3420	Maheshkumar Kanchalal Patil	Male	




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Modasa-387119 Dist. Jh.

Sri P. T. Science College, Modasa

Add on Course: **Basic Mathematics Aptitude**

Sl. No.	Roll No.	Student Name	Total Marks		Pass		Fail		Pass		Fail		Pass		Fail		Pass		Fail		Pass		Fail	
			100	75	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	441	Shubham Kumar Verma	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	442	Adarsh Kumar Sharma	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	443	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	444	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	445	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	446	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	447	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	448	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	449	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	450	Arjun Kumar Singh	100	75	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P





**ADD-ON
CERTIFICATE COURSE
IN
QUANTITATIVE APTITUDE SKILLS**

(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MATHEMATICS

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA

COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALI-383315

Course Type: Add-On Certificate Course

Course Name: Quantitative Aptitude Skills

Course Code: MATAD01

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 15

Aim and Objective: The prime objective of the course is to remove the maths phobia prevalent in students and to generate their love for mathematics. The students and individuals who want to learn practical methods in order to become a maths whiz and gain a competitive edge.

Course Description: The course is best suited for students preparing for entrance exams where basic knowledge and mathematical techniques can help candidates to save valuable time and gain confidence in the examination. The course is also suited for students whose aim is to crack competitive examinations in which basic knowledge of mathematics is required.

Details of Course:

Paper	Total Marks -50	Passing Marks
Quantitative Aptitude Skills	Attendance -10 Marks MCQ based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
80-100	Excellent-A+
70-79	Very Good-A
60-69	Good-B
40-59	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Quantitative Aptitude Skills"

Prepared by

Department of Mathematics

Sir P. T. Science College, Modasa

Course Co-Ordinator: Dr. K. N. Darji

Year: 2023-24

Date: 03-10-2023 to 27-10-2023

Unit 01: Percentage

- Percentage
- Formulae to Calculate Percentage
- Fast Track Techniques to Solve the Questions

Unit 02: Profit and Loss

- Basic Formulae Related to Profit and Loss
- Fast Track Techniques to Solve the Questions

Unit 03: Simple Interest

- ✓ Simple Interest (SI)
- ✓ Instalments
- ✓ Fast Track Techniques to Solve the Questions

Unit 04: Compound Interest

- ✓ Basic Formulae Related Compound Interest
- ✓ Instalments
- ✓ Fast Track Techniques to Solve the Questions

Books for Reference

1. R. S. Agarwal, Quantitative Aptitude, Sultan Chand and Company Ltd, New Delhi, 2017.
2. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, McGraw Hill Education, 2011.
3. Rajesh Verma, Fast Track objective Arithmetic, Arises Publication India Ltd

Course Outcomes:

Students get knowledge about mathematical rules, formulae and techniques used for competitive examination. Students were aware with the short tricks to solve the problems asked in competitive examination which are time consuming by its usual method of solving them.

Sir P.T.Science College, Modasa
Add on course:- Quantitative Aptitude Skills

Sr.No.	Roll No	Student Name	Gender	Sign
1	5431	Shahinbano Mohammedsalam Meghroja	Female	Shahin
2	5432	Shafiqshahar Hirabhai Kotara	Male	Shafiqshahar
3	5433	Shitaliben Kantibhai Patel	Female	Shitaliben
4	5434	Seehaben Anilkumar Prkapsal	Female	Seehaben
5	5435	Tanisha Mineshbhai Patel	Female	Tanisha
6	5436	Umanganal Akhtarhusein Sheikh	Male	Umanganal
7	5437	Vijaykumar Hirabhai Bimor	Male	Vijay - H.P
8	5438	Vishal Kumar Valsabhai Vanzara	Male	Vishal
9	5439	Vipulkumar Shantibhai Ode	Male	Vipulkumar
10	5440	Vishwabhai Vinchambhai Patel	Female	Vishwabhai
11	5441	Yashkumar Mukeshbhai Parmar	Male	Yashkumar




 Principal
 Sir P. T. Science College
 Modasa-383315, Dist.Aravalli

Sir P.T. Science College, Modasa

Add on courses: **Quantitative Aptitude Skills**

Sr. No	Roll No	Student Name	Total marks	Days																														Total	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	2431	Shantiben Mananlalbhai Solanki	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	2432	Shantiben Mananlalbhai Solanki	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	2433	Sardarbhai Kumbharbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	2434	Shantiben Mananlalbhai Solanki	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	2435	Verika Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	2436	Harshad Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	2437	Shantiben Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	2438	Shantiben Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	2439	Shantiben Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	2440	Shantiben Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	2441	Shantiben Mananlalbhai	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Sir P.T. Science College
Modasa-383111, Dist. Dahlgadh



**ADD-ON
CERTIFICATE COURSE
IN
BASIC OF VEDIC MATHEMATICS**

(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MATHEMATICS

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-38331**

Course Type: Add-On Certificate Course

Course Name: Basic of Vedic Mathematics

Course Code: MATAD04

Course Duration: 30 hours (Teaching will be conducted in week-end or in morning hours)

Eligibility Criteria: 12th Pass from any stream

Course Fees: Free of cost

Course Intake: 10

Aim and Objective: Vedic Math aims to enhance mathematical proficiency and problem-solving skills. Course offers innovative methods and shortcuts for performing various mathematical operations, emphasizing mental calculation and a deeper understanding of mathematical principles.

Course Description: The course is best suited for students preparing for entrance exams where basic knowledge and mathematical techniques can help candidates to save valuable time and gain confidence in the examination. The course is also suited for students whose aim is to crack competitive examinations in which basic knowledge of mathematics is required.

Details of Courses:

Paper	Total Marks -50	Passing Marks
Basic of Vedic Mathematics	Attendance -10 Marks MCQ based exam -40 marks	40% of Total Marks (20 Marks)

Grade System:

Percentage of Marks Obtained	Grade
80-100	Excellent-A+
70-79	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

“Basic of Vedic Mathematics”

Prepared by

Department of Mathematics

Raj P. T. Science College, Modasa

Course Co-Ordinator: Dr. V. H. Patel

Year: 2023-24

Date: 06-12-2023 to 29-12-2023

Unit 01 : Introduction to Vedic Maths

- History of Vedic Maths
- About the Father of Vedic Maths
- Features of Vedic Maths

Unit 02 : Vedic Maths Formulae

- Vedic Maths – 16 sutras
- Vedic Maths – 13 sub-sutras

Unit 03 : High Speed Addition

- Addition without carrying – $2 \times 2, 2 \times 3, 2 \times 4, \dots, 2 \times 10$ (rows/columns)
- Addition using dot method – $2 \times 2, 2 \times 3, 4 \times 4, \dots, 10 \times 10$ (rows/columns)
- Addition using dot method – random digits

Unit 04 : Super Fast Subtraction

- Subtraction using All from 9 that from 10 (Pôkshilam Navatascarani Daitab)
- Subtractions using appropriate base 1-Digit number (base 10) 2-Digit numbers (base 100) 3-Digit numbers (base 1000) 4-Digit numbers (base 10000) 5-Digit numbers (base 100000) 6-Digit numbers (base 1000000) 7-Digit numbers (base 10000000)

Books for References:

1. Fundamentals of Vedic Mathematics, A Workbook-Vidhya Vilas.
2. Dhaval Bhatiya, Vedic Mathematics-Made Easy, Second Edition, 2021.

Course Outcomes:

Vedic math is a system of learning maths for faster calculations with time-saving methods to get answers quickly developing the mental ability of learners and Vedic maths syllabus has the tricks and techniques to increase the speed in mathematics.

Sir P.T.Science College, Modasa
Add on course:-Basic of Vedic Mathematics

Sr.No.	Roll No	Student Name	Gender	Sign
1	5421	Meet Vihrukumar Prajapati	Male	
2	5422	Parth Rakeshbhai Prajapati	Male	
3	5423	Parshw Mageshbhai Prajapati	Male	
4	5424	Piyushkumar Dhanubhai Barot	Male	
5	5425	Pradipkumar Dineshbhai Damer	Male	
6	5426	Pravleen Dineshbhai Rathod	Female	
7	5427	Rafiq Aahimbhai Bhat	Male	
8	5428	Nisa Mageshbhai Patel	Female	
9	5429	Rukalyabani Aravindan Dodhmal	Female	
10	5430	Rushabhkumar Manikantbal Jhal	Male	



Principal

Sir P. T. Science College
Modasa-383115, Dist.Larvatl

Sir P.T. Science College, Modasa

Basic of Vedic Mathematics

Add on course:-

Sr. No	Roll No	Student Name	Test		Date																																				
			1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
1	S421	Amal Subhanshu Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
2	S422	Munish Akshay Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	S423	Manvi Akshay Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	S424	Prasanth Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	S425	Pratik Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	S426	Prasanth Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	S427	Pratik Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	S428	Pratik Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	S429	Pratik Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	S430	Pratik Kumar Prasad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Principal
 Sir P. T. Science College
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**ADD-ON
CERTIFICATE COURSE
IN
AN INTRODUCTION TO PYTHON**

(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

ORGANIZED

BY

**DEPARTMENT OF MATHEMATICS
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GILANDHI HIGHER EDUCATION SOCIETY, MODASA
COLLEGE CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**



ADD-ON

CERTIFICATE COURSE

IN

Biophysical technique

(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** Biophysical technique
- **Course Code:** 23UGMICRO6
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:** The goal of the biophysical chemist is to provide physical explanations for the ways in which important biological systems function
- **Course Description:** giving knowledge about biophysical tests
- **Details of course:**

Paper	Total Marks	Passing Marks
Biophysical technique	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"biophysical techniques"

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: DR.K.M.PATEL

Year: 2023-24

DATE: 04-12-2023 TO 03-01-2024

(For the all UG students admitted from the academic year 2023-24)

Course Code: 23UGMICRO6

Course Duration: 30 Hours

UNIT -1 NMR Spectroscopy: Quantum model for spin 1/2 nuclei; Classical Model; FT-NMR. NMR spectrometer and pulse sequence, Chemical shift; J-coupling; Relaxation; Rates and mechanisms, Correlation time, Spin decoupling; NOE, Spin echo, Applications of NMR in macromolecules, Multi-dimensional NMR; COSY; TOCSY, Protein NMR; General Principles: Resonance Assignment.

X-Ray Crystallography; Types of lattices and symmetry, Scattering by atoms and molecules; Scattering in terms of Fourier transforms, Interference from sets of atoms and Bragg's Law, Reciprocal lattice and systematic absences, Electron density calculations and phase problem; Solutions to phase problem, Patterson function, Model building and Refinement.





UNIT - 2 Microscopy: Design and fundamental principles of light and fluorescence microscopes; the fundamental principles of transmission and scanning electron microscopy; sample preparation for microscope, diffraction-limited resolution of light microscopy; point spread function and its utility. Structure and function of a confocal laser scanning microscope; the principle and use of deconvolution in fluorescence microscopy.

Chromatography: TLC, Paper, Size exclusion, Ion exchange, Affinity, HPLC, capillary electrophoresis and their applications.

Recommended texts

1. Jackson, M. B. (2006) *Molecular and Cellular Biophysics*. Cambridge University Press
2. Chary, K. V. R. & Govil, G. (2008) *NMR in Biological Systems. From Molecules to Human*. Springer.
3. Drenth, J. (2010) *Principles of Protein X-ray Crystallography*. Springer.

Sir P.T.Science College, Modasa
Add on course:- BIOPHYSICAL TEC.

Sr.No.	Roll No	Student Name	Gender	sign
1	1516	MOHAMMEDSUNAIN MOHAMMEDSALIM KHALIFA	M	
2	1517	MOHAMMEDTAUKIR MOHAMMEDYUSUF TINTOIYA	M	M.M.Tintoiya
3	1518	NAIYA JAYDIPSINH CHAUHAN	F	
4	1519	NENSI SUJITKUMAR BARAIYA	F	B.N.S.
5	1520	NILAMBEN PRAKASHBHAI KATARA	F	N.P. Katarai.
6	3527	ZAINAB ABDULRAUF KHALAK	F	
7	1521	PRIYANSHI SURESHBHAI PATEL	F	P.S. Patel
8	1523	RINKUBEN MANGALBHAI KHANT	F	R.M. Khernt
9	1525	RIYA BHAVESHKUMAR KADIYA	F	R.B. Kadiya.
10	1526	RIYAKUMARI TULSIDAS TABIYAD	F	
11	5534	MISHREE PARAGKUMAR SHAH	F	M.P. Shah




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Sir P. T. Science College, Modasa

Add on course:-biophysical tecniques

Sl. No	Roll No	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	5561	MUHAMMAD NABIL MUHAMMADALI KHALIFA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	5562	MUHAMMAD ARIK MUHAMMAD TUSUF TUNTUYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	5563	NAOJA JAYDIPSIKA DAMAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	5564	NOVA SURESHVAR BAWATI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	5565	NILANESH PRADESHWAR ERTANA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	5567	ZAINAB ABDULRAHAF IQBALAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	5571	PRIVANSHI SURESHWAR PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8	5573	SHRUTIKESH MANGALSHAM DAVAT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
9	5575	NOVA BHAVESHWAR KADOTA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
10	5576	SHYAMOLI TEJASWATI TRIVAD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
11	5584	MUSFREE PARAGKUMAR SHAH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
12	5562	URVASHIKUMARI KHATUNSIH DAMOR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
13	5563	VISHVABAHEN CHIRAGSHA RAVAL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
14	5565	VRUSHTEEN ASHOKSHA PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
15	5566	VASHKUMAR GIRISHBHAI GAMETI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

Prinicipal

Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by
THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"BIOPHYSICAL TECHNIQUE"-2024

Certificate

This is to certify that _____
Class B.Sc., Semester-____, Roll No.____ has
successfully completed 30 Hours Add on Course
"BIOPHYSICAL TECHNIQUE"-2024 which was
organized by Department of Microbiology from
04/12/2023 TO 03/01/2024 at college campus.

Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr. K.P.PATEL
Principal

Date:

Place: MODASA



ADD-ON
CERTIFICATE COURSE
IN
BIOSTATISTICS
(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MICROBIOLOGY
SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315

- **Course Type:** Add-On Certificate Course
- **Course Name:** **BIOSTATISTICS**
- **Course Code:** 23UGMICRO5
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:**
- **Course Description:**
- **Details of course:**

Paper	Total Marks	Passing Marks
BIOSTATISTICS	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

" **BIOSTATISTICS** "

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PROF. N.D. CHARAN

Year: 2023-24

DATE: 31-01-24 to 29-02-24

(For the all UG students admitted from the academic year 2023-2024)

(For the all UG students admitted from the academic year 2023-24)

(For the all UG students admitted from the academic year 2023-24)

Course Code: 23UGMICRO5

Course Duration: 30 Hours

**UNIT-I :- PARAMETRIC STATISTICS
HOURS)**

(15

- Definition and scope, Organizing a statistical survey and presentation of statistically analysed information
- Basic statistical methods: Measures of central tendency, dispersion and standard error; Probability distributions: binomial, poisson and normal distribution
- Statistical significance: Hypothesis testing, types of error, level of significance,
- Student's t test, F test and Chi square goodness of fit
- Simple linear regression and correlation analysis

**UNIT-II :- NONPARAMETRIC STATISTICS
HOURS)**

(15

- Comparing Parametric and Non parametric statistics, Rank test, F-max test, Mann
- -Whitney (U) test, and Sign test
- Applications of non parametric statistics in biological research
- Basic computing: MS Office ®, Internet
- Data base management, Use of computers in statistical analysis

REFERENCES:

1. Milton, J.S 1992 Statistical Methods in Biological and Health Science. McGraw-Hill Inc, New York.
2. Scheffler, W.C. 1963 Statistics for biological sciences. Addition - Wesley Publication Co., London.
3. Snedecor, G. Wand Cochran, W. G. 1967 Statistical Methods. Oxford Publication Co., New Delhi.
4. Spiegel, M.R. 1981 Theory and problems of statistics, Schaum's Outline Series McGraw-Hill International Book Co., Singapore.
5. Day R.A. 7th Edition. How to write and publish a scientific paper

Sir P.T.Science College, Modasa
Add on course:- **BIOSTASTICS**

Sr.No.	Roll No	Student Name	Gender	sign
1	3501	Aarzuben Dilavarbhai Mansuri	F	<i>Aarzu</i>
2	3502	Aimas Mohd Zakariya Khan	M	<i>Aimas</i>
3	3503	Anjaliben Gopalbhai Valand	F	<i>Anjali</i>
4	3507	Harvi Miteshkumar Patel	F	<i>Harvi</i>
5	3508	Jinkalben Vishnubhai Patel	F	<i>J.V.P.</i>
6	5502	AAYUSHI NILESHKUMAR PUROHIT	F	<i>Aayushi</i>
7	5503	AMAN ASHOKBHAI PATEL	M	<i>Aman</i>
8	5504	AMANSINH BALDEVSINH RAJPUT	M	<i>Amansinh</i>
9	5505	ANITA DURGSINH RAJPUROHIT	F	<i>Anita</i>
10	5506	AVATEJKUMAR DINESHBHAI CHAUDHARI	M	<i>Avatej</i>
11	1501	ADITI ASHOK SHENDKAR	F	<i>Aditi</i>
12	1502	AMIBEN ALPESHBHAI SUTHAR	F	<i>A.A.S</i>
13	1503	ANKITA BABUBHAI BAMANIYA	F	<i>Ankita</i>
14	1504	ARYANKUMAR MAHESHKUMAR GADHAVI	M	<i>Aryankumar</i>
15	1505	ASHVI KIRANBHAI PATEL	F	<i>Ashvi. k. Patel .</i>



[Signature]
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Sir P. T. Science College, Modasa

Add on course:-BIOSTASTICS

Sr. No	Roll No	Student Name	Gender	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	1501	Aarabhi Dhanrajhi Mansuri	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
2	1502	Aruna Mohd Zafarja Khan	M	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	
3	1503	Anjaliiben Gopabhai Valand	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	1507	Harna Maheshkumar Patel	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	1508	Jinkabben VishnuBhai Patel	F	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	1502	AATYUSHI NILESHKUMAR PURNIT	F	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	1503	AMANI ASHOKBHAU PATEL	M	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	1504	AMANSHI BALDEVSHI RAJPUT	M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	1505	ANITA DURGISHI RAJPUROHIT	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	1506	AVATEJKUMAR DINESHBHAU CHAUDHARI	M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	1501	AADITI ASHOK SHENOKAR	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	1502	ANISHA ALPESHSHAI SUTKAR	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	1503	ANVITA BABUBHAI BARAMANIYA	F	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	1504	ARYANKUMAR MAHESHKUMAR GADHANI	M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	1505	ASHVI KIRANBHAI PATEL	F	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Principal

Sir P. T. Science College
Modasa-383315, Dist. Arva

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by

THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
status awarded by UGC AND

'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"BIOSTATISTICS"-2024

Certificate

This is to certify that _____ Class **B.Sc.**,
Semester-___, Roll No. _____ has successfully
completed 30 Hours Add on Course
"BIOSTATISTICS"-2024 which was organized by
Department of Microbiology from 31/01/2024 TO
29/02/24 at college campus.

K.P.PATEL
Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr.
Principal

Date:
Place: MODASA



ADD-ON

CERTIFICATE COURSE

IN

MICROBIOLOGY OF DRINKING WATER

(EFFECTIVE FROM: ACADEMIC YEAR 2022-2023)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** MICROBIOLOGY OF DRINKING WATER
- **Course Code:** 22UGMICRO2
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:** giving knowledge about different Kind of water contamination and floras
- **Details of course:** to give information to quality assessment of water and disease spread through it

Paper	Total Marks	Passing Marks
MICROBIOLOGY OF DRINKING WATER	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

" MICROBIOLOGY OF DRINKING WATER"

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PORF.N.D.CHARAN

Year: 2022-23

DATE: 02-01-2023 TO 28-01-2023

(For the all UG students admitted from the academic year 2023-2024)

Course Code: 22UGMICRO2

Course Duration: 30

Hours

UNIT I Drinking water microbiology

13 Hours

- Introduction to drinking water microbiology
- Microbial flora of well
- Microbial flora of spring
- Microbial flora of pond
- Microbial flora of municipal water sources
- Coliform contamination of drinking water

UNIT II Water potability detection technique

13 Hours

- Coliform and their determination
- Multiple – tube technique
- Membrane filtration technique
- Presence –Absence test
- Stander plate counts
- Presumptive confirm completed test

Practical

Water potability detection technique

04 Hours

- Multiple – tube technique
- Presence –Absence test

- Stander plate counts
- Presumptive confirm-completed test

References:

1. Water Microbiology Dr. Nikhilesh Kulkarni, Dr. Shiva C. Aithal
2. Handbook of Water and Wastewater Microbiology, 2003 by Duncan Mara - Nigel J Horan
3. Microbiology - Michael J. Pelczar JR., F.C.S.Chan and Noel R. Krieg, 5th edition, Tata McGRAW-HILL Edition, 1993. 3. A handbook of elementary Microbiology by H.A. Modi, Shanti Prakashan, Rohtak Haryana.
4. Experimental Microbiology - Rakesh J. Patel & Kiran R. Patel, Volume I
5. Practical Microbiology- Dr. R.C. Dubey and Dr. D.K. Maheshwari (Revised edition), S. Chand publication
6. Microbiology : A Practical Approach – Dr Bhavesh Patel and Dr Nandini Phanse
7. Prescott's Microbiology Textbook by Christopher J. Woelfel, Joanne M. Willey, and Linda Sherris

"ADD ON COURSE ON MICROBIOLOGY OF DRINKING WATER" – 2022-23

Organized by Department of Microbiology

SIR P.T.SCIENCE COLLEGE, MODASA

Registration Form

1. Name of Student: Khushi Kamleshbhai Patel.
2. Address: Umedpur, Ta-Modasa, Dis-Aravalli
3. E-mail ID:
4. Mobile Number: 9313291769
5. Semester of Study: 6
6. Subject: Microbiology
7. Roll No: 5523
8. Academic Year: 2022-23
9. Enrollment No: BSc 0082057934
10. Average of SGPA of all previous semesters: 8.33


Date:

Place: Modasa

KKP.

Signature of Students




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

ATTENDANCE SHEET(MICRO 2022-23)

MICROBIOLOGY OF DRINKING WATER DATE: 02-01-2023 TO 28-01-2023

SR NO.	STUDENT NAME	02/01/23	03/01/23	04/01/23	05/01/23	06/01/23
1	Ami Pravinbhai Suthar	AP	AP	AP	AP	AP
2	Juveria Mohammed yusuf khalak	Jm	Jm	Jm	Jm	Jm
3	Naiman Fatima Mohommad Hussain khalak	Nmf	Nmf	Nmf	Nmf	Nmf
4	Krishna Kamleshbhai Chaudhary	K.K.C	K.K.C	K.K.C	K.K.C	K.K.C
5	Shifa Sarfarazbhai Tintoiya	S	S	S	S	S
6	Dipikaben Natubhai Patel	Dp	Dp	Dp	Dp	Dp
7	Haniben Indravadan Pandya	Hani	Hani	Hani	Hani	Hani
8	Hemangi Gautambhai Patel	Hemg	Hemg	Hemg	Hemg	Hemg
9	Khushi Kamleshbhai Patel	KKP	KKP	KKP	KKP	KKP
10	Noosaba Abdullah Seth	NAS	NAS	NAS	NAS	NAS
11	Azmina Mohommad Abrar Mansuri	A	A	A	A	A
12	Darshna Sureshkumar Prajapati	DSP	DSP	DSP	DSP	DSP
13	Diyaben Kaushikkumar Upadhyay	Diya	Diya	Diya	Diya	Diya
14	Sparsh Ramanbhai Patel	Sparsh	Sparsh	Sparsh	Sparsh	Sparsh
15	Shivani Mukeshbhai Patel	S	S	S	S	S
16	Pooja Mayurkumar Chauhan	Pmcb	Pmcb	Pmcb	Pmcb	Pmcb
17	Kuishnkumar Motilal Malivad	K	K	K	K	K
18	Ghanshyambhai Dahyabhai Patel	G	G	G	G	G
19	Isha Hiteshbhai Suthar	I	I	I	I	I
20	Kamrjaha mustakh Hussain Gori	K.m.g	K.m.g	K.m.g	K.m.g	K.m.g
21	Anjali Rupalbhai Valand	Anjali	Anjali	Anjali	Anjali	Anjali
22	Boomiben Ashokbhai Parmar	B.A.P	B.A.P	B.A.P	B.A.P	B.A.P
23	Bijalben Madanbhai Damor	B.D	B.D	B.D	B.D	B.D
24	Jinkalben Vishnubhai Patel	J.V.P	J.V.P	J.V.P	J.V.P	J.V.P
25	Maitri Ashokbhai Patel	M.A.Patel	M.A.Patel	M.A.Patel	M.A.Patel	M.A.Patel


Principal

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SIR P.T.SCIENCE COLLEGE, MODASA

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Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

**"Microbiology Of Drinking Water"-
2023**

Certificate

This is to certify that _____ Class
B.Sc., Semester- , Roll No. _____ has
successfully completed 30 Hours Add on Course
"microbiology of drinking Water" which was organized
by Department of Microbiology from 02/01/23 TO
28/01/23 at college campus.

Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr. K.P.PATEL
Principal

Date:

Place: MODASA



**ADD-ON
CERTIFICATE COURSE
IN
HEMATOLOGY
(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)**

Organized By

**DEPARTMENT OF MICROBIOLOGY
SIR P. T. SCIENCE COLLEGE, MODASA**

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** HEMATOLOGY
- **Course Code:** 23UGMICRO4
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:** The haematology course aims to help the students understand and recognise the pathologies behind benign and malignant disorders of erythrocytes, leucocytes, thrombocytes and the bone marrow.
- **Course Description:** To provide in depth knowledge about the pathology and pathophysiology of haematological disorders. To help the students, read and evaluate laboratory values from routine blood examination and be able to differentiate between pathologies.
- **Details of course:**

Paper	Total Marks	Passing Marks
HEMATOLOGY	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"HEMATOLOGY"

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PROF.D.M.JOSHI

Year: 2023-24

DATE:01-01-2024 TO 25-01-2024

HEMATOLOGY

(For the all UG students admitted from the academic year 2023-2024)

Course Code: 23UGMICRO4

Course Duration: 30 Hours

UNIT I–Blood and it's components

15 hours

- A. Plasma And Serum
- B. Red Blood Cell
- C. White Blood Cells
- D. Platelets

UNIT II– Blood transfusion and transfusion reaction




15 hours

- A. Collection, Storage And Transfusion Of Blood
- B. Blood Grouping
- C. Minor And Major Cross-Matching


REFERENCES

1. Medical Laboratory Technology: Procedure Manual for Routine Diagnostic Tests by Mukherjee, McGraw Hill Education
2. Textbook of medical laboratory technology by Godkar, Bhalani Publishing House
3. Clinical Microbiology Made Ridiculously Simple, GLADWIN,
4. Microbiology an Introduction By Tortora, Benjamin Cummings
5. Medical Microbiology by Kayser
6. Instant Notes in Biochemistry, Hoper
7. Instant Notes in Microbiology,
8. Oxford handbook of clinical and laboratory Investigation by Provan
9. District laboratory practice in tropical country by Cheesbrough, Cambridge University Press

Sir P.T.Science College, Modasa
Add on course:- Hematology

Sr.No.	Roll No	Student Name	Gender	sign
1	1506	AVINASHKUMAR SUKHABHAI KHANT	F	
2	1507	BUSRA MOHAMMEDARIF CHADI	F	B.M. Chadi
3	1508	DEVANSHI NITINKUMAR PATEL	F	D.N. Patel
4	1509	HARVIBEN ASHVINBHAI VALAND	F	harvib
5	1510	HINABEN MANGABHAI KHANT	M	H.M. Khant
6	3514	Niketan Arvindbhai Pargi	M	
7	3515	Rajdip Kamleshbhai Pandya	M	R.K. Pandya
8	3516	Ruchitakunvar Yogendrasinh Puwar	F	Ruchitakunvar
9	3517	Sabahatbanu Zakirhusain Hatmatiya	F	
10	3519	Saniyakumari Pravinbhai Pandav	F	S.P. Pandav
11	5507	AYUSHIBEN ISHVARBHAI PATEL	F	Ayushi
12	5508	AZMINA MOHAMMEDDABRAR MANSURI	F	
13	5517	DIYABEN KAUSHIKKUMAR UPADHYAY	F	D.K. Upadhyay
14	5518	FIZA DINESHCHANDRA PATEL	F	Fiza
15	5519	GAYATRIBEN DHARAMSINH RAJPUT	F	G.D. Rajput




Principal
Sir P. T. Science College
Modasa-383315, Dist. Arvalli.

Sir P. T. Science College, Modasa

Add on course:-hematology

Sr. No	Roll No	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	1506	AVINASHKUMAR SUKABHAI KHANT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	1507	BUSRA MOHAMMEDARIF CHADI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	1508	DEVANSHI NITINKUMAR PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	1509	HARVIBEN ASHVINIBHAI VALAND	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	1510	HINABEN MANGABHAI KHANT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	3514	Niketani Arvindbhai Pargi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	3515	Rajdip Kamleshbhai Pandya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	3516	Ruchitakunvar Yogendrasinh Puwar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	3517	Sabahatbanu Zakirhusain Hatmatiya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	3519	Sanhyakumari Pravrbhai Pandav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	5507	AVUSHIBEN ISHVARBHAI PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	5508	AZMINA MOHAMMEDDABRAR MANSURI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	5517	DIYABEN KAUSHIKKUMAR UPADHYAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	5518	FIZA DINESHCHANDRA PATEL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	5519	GAYATRIBEN DHARAMSINH RAJPUT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Principal

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status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"HEMATOLOGY"-2024

Certificate

This is to certify that _____ Class
B.Sc., Semester-____, Roll No. _____ has
successfully completed 30 Hours Add on Course
"HEMATOLOGY"-2024 which was organized by
Department of Microbiology from 01/01/24 TO
25/01/24 at college campus.

Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr. K.P.PATEL
Principal

Date:

Place: MODASA



ADD-ON

CERTIFICATE COURSE

IN

PLANT PATHOLOGY

(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MICROBIOLOGY

SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

**THE M. L. GHANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315**

- **Course Type:** Add-On Certificate Course
- **Course Name:** Plant pathology
- **Course Code:** 23UGMICRO7
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:** To impart training on various methods/techniques/instruments used in the study of plant diseases/pathogens.
- **Course Description:** Plant pathogens cause disease in plants and cause losses in food and other necessary items. The losses may be light or very severe, sometimes destroying all the plants and causing hunger, starvation, and famines. Graduates will demonstrate breadth and depth in their knowledge of the principles, concepts and methods of the field of Plant Pathology and its related disciplines, and be able to critically evaluate, integrate, and apply that knowledge.

- **Details of course:**

Paper	Total Marks	Passing Marks
Plant Pathology	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Plant Pathology"

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PROF. N.D. CHARAN

Year: 2023-24

DATE: 31-01-24 to 29-02-24

(For the all UG students admitted from the academic year 2023-2024)

(For the all UG students admitted from the academic year 2023-24)

Course Code: 23UGMICRO7

Course Duration: 30 Hours

PLANT PATHOLOGY

- Unit-1:** Importance, definitions and concepts of plant diseases, history and growth of plant pathology, biotic and abiotic causes of plant diseases. Growth, reproduction, survival and dispersal of important plant pathogens, role of environment and host nutrition on disease development. Host parasite interaction, recognition concept and infection, symptomatology, disease development- role of enzymes, toxins, growth regulators; defense strategies
- Unit- 2:** isolation , identification technique, Methods to prove Koch's postulates with pathogens, pure culture techniques, use of selective media to isolate pathogens Microorganism as biological control for Plant Protection

References

- 1 Sharma, P. D. (2017), Mycology and Phytopathology Rastogi Publication, Meerut.
2. Agrios, G.N. 1997 Plant Pathology, 4th edition, Academic Press, U.K.
3. Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology. John Wiley & Sons (Asia) Singapore. 4th edition.
4. Webster, J. and Weber, R. (2007). Introduction to Fungi. Cambridge University Press, Cambridge. 3rd edition.
5. Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi and Their Allies, Macmillan Publishers India Ltd.
6. Mehrotra, R. S. (2011). Plant Pathology. Tata McGraw-Hill Publishing Company Limited, New Delhi

Sir P.T.Science College, Modasa
Add on course:-Plant pathology

Sr.No.	Roll No	Student Name	Gender	sign
1	1511	JAYKUMAR VINODBHAI PATEL	M	J.V.P
2	1512	JEEL KIRANKUMAR DHANULA	F	JEEL
3	1513	KANIZFATMA ABDULRAZZAQ KHANJI	F	K.A.K
4	1514	KASHISH IMRAN BAYADIYA	F	K.I. Bayadiya
5	1515	KHUSHI YOGESHBHAI SUTHAR	F	K.Y. Suthar
6	3522	Sofiya Bilal Dadhaliyawala	F	Sofiya
7	3523	Tanishakumari Kalpeshkumar Rehevar (Rehevar)	F	TANISHA.
8	3524	TANVEEBEN BHARATBHAI MAHIDA (Tanviden)	F	Tanvi
9	3525	Tanviben Kanubhai Damor	F	Tanvi
10	3526	TASKIN NASHIRHUSEN SHEKH	F	taskin
11	5523	HEMANGIBEN MAHESHBHAI DARAJI	F	H.m.d.
12	5524	ISHA VINODBHAI BAMANIYA	F	Ishamaniya
13	5526	JANVI NATUBHAI PRANAMI	F	J.N.P.
14	5527	KAJAL PRABHAKARSINH RAJPUT	F	Kajal
15	5531	KISHANKUMAR MOTILAL MALIVAD	M	Kishankumar




Principal
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Modasa-383315, Dist. Arvalli.

Sir P. T. Science College, Modasa

Add on course:-Plant Pathology

Sr. No	Roll No	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	1511	JAYKUMAR VINODBHAI PATEL	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	1512	JEEB KIRANKUMAR DHANULA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	1513	KANIZFATMA ABDULRAZZAQ KHANI	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
4	1514	KASHISH IMRAN BAYADIYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	1515	KHUSHI YOGESHBHAI SUTMAR	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	3522	Sofiya Bilal Dadhallyawala	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	3523	Tanishakumari Kalpeshkumar Rehavar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	3524	TANVEEBEN BHARATBHAI MAHIDA	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	3525	Tanviben Kanubhai Damor	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
10	3526	TASKIN NASHIRHUSEN SHEKH	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	5523	HEMANGIBEN MAHESHBHAI DARAJI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	5524	ISHA VINODBHAI BAMANIYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	5526	JANVI NATUBHAI PRANAMI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	5527	KAJAL PRABHAKARSINH RAJPUT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	5531	KISHANKUMAR MOTILAL MALIVAD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Sir P. T. Science College
 Modasa-383315, Dist. Arvali.

Principal

SIR P.T.SCIENCE COLLEGE, MODASA

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Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
status awarded by UGC AND
'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"PLANT PATHOLOGY"-2024

Certificate

This is to certify that _____ Class
B.Sc., Semester-___, Roll No. has successfully
completed 30 Hours Add on Course "**PLANT
PATHOLOGY"-2024** which was organized by
Department of Microbiology from **31/01/24 TO
29/02/24** at college campus.

K.P.PATEL
Course Co-ordinator

Dr. K. M. Patel
HOD, Dept. of Microbiology

Dr.
Principal

Date:
Place: MODASA



ADD-ON
CERTIFICATE COURSE
IN
RESEARCH METHODOLOGY
(EFFECTIVE FROM: ACADEMIC YEAR 2023-2024)

Organized By

DEPARTMENT OF MICROBIOLOGY
SIR P. T. SCIENCE COLLEGE, MODASA

MANAGED BY

THE M. L. GANDHI HIGHER EDUCATION SOCIETY, MODASA COLLEGE
CAMPUS, DHANSURA ROAD, MODASA, ARVALLI-383315

- **Course Type:** Add-On Certificate Course
- **Course Name:** Research Methodology
- **Course Code:** 23UGMICRO3
- **Course Duration:** 30 hours (Teaching will be conducted in week-end or in morning hours)
- **Eligibility Criteria:** 12th Pass from any stream
- **Course Fees:** Free of cost
- **Course Intake:**15
- **Aim and Objective:** giving knowledge about research and its methodologies.
- **Course Description:** Prepare a project proposal (to undertake a project) • organize and conduct research (advanced project) in a more appropriate manner • write a research report and thesis • write a research proposal (grants)
- **Details of course:**

Paper	Total Marks	Passing Marks
Research Methodology	100 marks mcq based test	33 marks

- **Grade system:**

Percentage Of Marks Obtained	Grade
90-100	Excellent-A+
70-89	Very Good-A
50-69	Good-B
40-49	Fair-C
Below 40	Not eligible for certificate-D

APPROVED SYLLABUS FOR ADD ON COURSE ON

"Research Methodology"

Prepared by

Department of Microbiology

Sir P. T. Science College, Modasa

Course Co-Ordinator: PROF.D.M.JOSHI

Year: 2023-24

DATE:01-01-2024 TO 25-01-2024

RESEARCH METHODOLOGY

(For the all UG students admitted from the academic year 2023-2024)

Course Code: 23UGMICRO3

Course Duration: 30 Hours

UNIT I– Research methodology

15 hours

- A. Characteristics and types of scientific research
- B. Basics of research methodology
- C. Research and Experimental design
- D. Method of Data collection

UNIT II– Scientific deliveries

15 hours

- A. Scientific Deliveries and Communications: Writing Research proposal, Paper,
- B. Thesis, Report and Citations
- C. Citations, H-Index, I10-Index, Impact factor and selection criteria of scientific
- D. journals for research publications
- E. Presenting scientific research: Power point presentations, Posters, Flyers, etc.
- F. Publication processes, Review Processes and Significance of scientific
- G. Communications

References

1. Milton, J.S 1992 Statistical Methods in Biological and Health Science. McGraw-Hill Inc, New York.
2. Scheffler, W.C. 1963 Statistics for biological sciences. Addition - Wesley Publication Co., London.
3. Snedecor, G. Wand Cochran, W. G. 1967 Statistical Methods. Oxford Publication

Co., New Delhi.

4. Spiegel, M.R. 1981 Theory and problems of statistics, Schaum's Outline Series

McGraw -Hill International Book Co., Singapore.

5. Day R.A. 7th Edition. How to write and publish a scientific paper

ATTENDANCE SHEET (MICRO 2023-24)

METHODOLOGY 04-01-2024 TO 30-01-2024

SR N	NAME	04/01/24	05/01/24	06/01/24	07/01/24	10/01/24
1	Asli Shroya ka til	SA	SA	SA	SA	SA
2	Panchajanya Rakeshbhai	Shivraj	Shivraj	Shivraj	Shivraj	Jinraj
3		S	S	S	S	S
4		P	P	P	P	P
5		Psai	Psai	Psai	Psai	Psai
6		Raya	Raya	Raya	Raya	Raya
7		Sh	Sh	Sh	Sh	Sh
8		Pmch	Pmch	Pmch	Pmch	Pmch
9		J	J	J	J	J
10		R	R	R	R	R
11	Deshkumar	Deshkumar	Deshkumar	Deshkumar	Deshkumar	Deshkumar
12		Chaji	Chaji	Chaji	Chaji	Chaji
13	usen	b.m.g	b.m.g	b.m.g	b.m.g	b.m.g
14		Rish	Rish	Rish	Rish	Rish
15		Randani	Randani	Randani	Randani	Randani
16		Arjun	Arjun	Arjun	Arjun	Arjun
17	MO Mudassar	SITC	SITC	SITC	SITC	SITC
18		J	J	J	J	J
19		Det	Det	Det	Det	Det
20		maithi	maithi	maithi	maithi	maithi
21	sinh	ASh	ASh	ASh	ASh	ASh
22		SIFS	SIFS	SIFS	SIFS	SIFS
23		OB	OB	OB	OB	OB
24		BAP	BAP	BAP	BAP	BAP
25		B.A.P	B.A.P	B.A.P	B.A.P	B.A.P

Principal

Sir P. T. Science College
Modasa-383315, Dist. Arvali.

ATTENDANCE SHEET(MICRO 2023-24)

PHI METHODOLOGY 04-01-2024 TO 30-01-2024

SR N	NAME	11/1/24	12/1/24	13/1/24	15/1/24	17/1/24
1	...	SA	SA	SA	SA	SA
2	...	dhivangi	dhivangi	dhivangi	dhivangi	dhivangi
3	...	SA	SA	SA	SA	SA
4	...	SA	SA	SA	SA	SA
5	...	Psiti	Psiti	Psiti	Psiti	Psiti
6	...	Riya	Riya	Riya	Riya	Riya
7	...	bhushi	bhushi	bhushi	bhushi	bhushi
8	...	P.mcd	P.mcd	P.mcd	P.mcd	P.mcd
9	...	SA	SA	SA	SA	SA
10	...	(R)	(R)	(R)	(R)	(R)
11	...	Darshana	Darshana	Darshana	Darshana	Darshana
12	...	Opag	Opag	Opag	Opag	Opag
13	...	k.mg	k.mg	k.mg	k.mg	k.mg
14	...	Qm	Qm	Qm	Qm	Qm
15	...	Randani	Randani	Randani	Randani	Randani
16	...	Hayasine	Hayasine	Hayasine	Hayasine	Hayasine
17	...	SA	SA	SA	SA	SA
18	...	(H)	(H)	(H)	(H)	(H)
19	...	SA	SA	SA	SA	SA
20	...	maithi	maithi	maithi	maithi	maithi
21	...	Qm	Qm	Qm	Qm	Qm
22	...	SA	SA	SA	SA	SA
23	...	SA	SA	SA	SA	SA
24	...	SA	SA	SA	SA	SA
25	...	B.A.P	B.A.P	B.A.P	B.A.P	B.A.P

SIR P.T.SCIENCE COLLEGE, MODASA

Managed by

THE M.L.GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated to Hemchandracharya North Gujarat University, Patan
Accredited with 'B++' Grade (2.83 CGPA) by NAAC in the 2nd Cycle
status awarded by UGC AND

'A' Grade (CGPA 3.04) in AAA by KCG (Govt. of Gujarat)

ADD ON COURSE

Organized by Department of Microbiology

"Research Methodology"-2023-24

Certificate

This is to certify that _____ Class **B.Sc.**,
Semester-__, Roll No. _____has successfully
completed 30 Hours Add on Course "Research
Methodology"-2023-24 which was organized by
Department of Microbiology from 04/01/24 TO
30/01/24 at college campus.

Course Co-ordinator

Dr. K. M. Pate
HOD, Dept. of Microbiology

Dr. K.P.PATEL
Principal

Date:

Place: MODASA



Summer Course on Electric Circuit Analysis

Registration Fee: Free

Last date: 30 July 2023



Organized by DEPARTMENT OF PHYSICS Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of algebra and mathematics.
- Interested in learning electricity and electronics.
- Open to scientific disciplines.

Description

The Electric Circuit Analysis Course covers electricity and electronics calculation.

The course includes practical and test applications of electric circuits, AC circuits and electronics, and a module on the use of Department of Physics and electronics applications. The Electric Circuit Analysis Course is organized into four sessions:

- Basic concepts
- Basic laws
- Methods of solution
- Applications

Who this course is for:

- High school students of B.Sc.
- Intermediate college or school students studying electronics or electronics science.
- Anyone interested in learning more about the applications of electrical and electronics systems.

The Organization requires full attendance and participation.

Contact: Head of Department

Course Coordinator: Dr. R. K. Chavhan

College Coordinator: Prof. G. K. Vaidya

Phone: 079-2333333

Aims of the programme:

- To develop the skills required to gather information from resources and use them.
- To provide an intellectually stimulating environment to develop skills and enthusiasm of students to the best of their potential.
- To give need based education in physics of the highest quality at the undergraduate level.
- To offer courses to the choice of the students.
- To enable students to perform experiments and interpret the results of observations, including an assessment of experimental uncertainties.

Objective:

By the end of the add on Course on Electrical Circuit Analysis the students should have attained a common level in basic of Electrical Circuit theories to complement the aim for their future courses and developed their experimental and data analysis skills through experiments at laboratories.

D.C. Circuit Analysis

Simple R-L Circuit - Growth and decay of current in inductive circuit, R-C Circuit, Assessment of A.C. power by method of wattmeter - Comparison of wattmeter to De Sauty's Method. (Max. 14 Credits) (Syllabus: ECEC 101)

Network Theories

- Superposition Theorem, Thevenin's Theorem, Norton's Theorem, Maximum Power Transfer

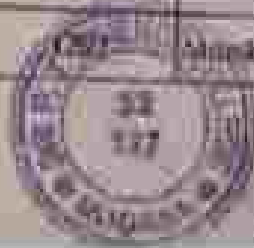




Sir P.T. Science College, Modasa

Add on course:- Electrical Circuit Analysis

Roll No	Student Name	Gender	Sign
1001	Jigajantir Rajendra Patel	Male	[Signature]
1002	Raghuvendra Javantsinh Maswani	Male	[Signature]
1003	Vishalram Nanjibhai Vankar	Female	[Signature]
1004	Vrushabhkumar Patel	Female	[Signature]
1005	Yashkumar Vipulbhai Bhavsar	Male	[Signature]
1006	KRISHKOMAR SANDIPESHAI PATIL	Male	[Signature]
1007	NET DRUPADKUMAR JOSHI	Male	[Signature]
1021	Ramabhai Abhaji Shant	Female	[Signature]
1022	Kotliji Karanabhai Parmar	Male	[Signature]
1023	Murad Muradabhai Baval	Male	[Signature]
1024	Nitesh Rajubhai Revol	Male	[Signature]
1025	Sagarkumar Shivabhai Yerra	Male	[Signature]
1026	Sankumar Rajubhai Pandey	Male	[Signature]
1027	Sahajkumar Lalibhai Solanki	Male	[Signature]
1028	Shraddha Manojkumar Kaji	Female	[Signature]
1029	SHRADDHA LAXMANRAI KARAN	Male	[Signature]
1030	VIVEK YASHWANTHAI FOTEL	Male	[Signature]
1031	UDHIRAJUMAR JAYTIKAR KRANT	MALE	[Signature]
1032	Anshulbhai Rajendra Parmar	Female	[Signature]
1033	Ashutosh Dhanubhai Gajjar	Male	[Signature]
1034	Maheshkumar Tejasvitha Bhavsar	Male	[Signature]
1035	Ushaben Narayndas Patel	Female	[Signature]
1035	Maheshkumar Jagdishbhai Barot	Male	[Signature]
1036	Namrata Nishikant Kalia	Female	[Signature]
	Manikantaram Pradipbhai Ranjar	Female	[Signature]



Sir P. T. Science College
Modasa

1268	Fatih Satish Patel	Male	P. U. Patel
1269	Parasuram Rajeshwar Dargi	Male	P. Dargi
1270	Prakash Kumar Anandharaman	Male	P. Anandharaman
1271	Savan Kumar Divyansh Madan	Male	S. D. Madan
1272	Sureshkumar Balubhai Dand	Male	Suresh S. B.
1301	Abhishek Maheshwar Patil	Female	A. Patil
1302	Anshika Kanchan Chaudhary	Female	A. Chaudhary
1303	Ashish Suresh Solanki	Male	A. S. Solanki
1304	Bhisham Sunil Patil	Female	B. Patil
1305	Krishna Maheshwar Rajurkar	Male	K. Rajurkar
1306	Harshvardhan Madhav Solanki	Male	H. Solanki
1307	Sureshkumar Vinod Solanki	Male	S. Solanki
1308	SHABAN JAGJAGANNATH KUMAR	Female	S. Kumari
1309	PRATHAM SHRIMENORASHI KAPUR	Male	P. Kapur
1310	NEEL ANILKUMAR SHARMA	Female	N. Sharma
1311	Sharmistha Anandharaman	Female	S. Anandharaman
1312	Subhadra Shambhu Dand	Female	S. Dand
1313	Shruti Vitthal Kumar Patil	Female	S. Patil
1314	Shubhangi Anandharaman	Female	S. Anandharaman
1315	Shruti Anandharaman	Female	S. Anandharaman

G. L. VASANT
 CHAIRMAN
 1 July 2023



P. T. Science College
 Warananagar - 431 104, Dist. A. P. S.

Sl. No.	Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Average
1	Attendance	20	20	20	20	20	20	20	20	20	20	20	20	240	20
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Signature
Date



Principal
School Name

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by
THE M.L. BARDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that _____

Class B.Sc., Semester-1, Roll No _____ has successfully completed 30 Hours Add on certificate Course "Electrical Circuit Analysis" organized by Department of Physics from 02-08-2023 TO 02-09-2023 at college campus.


Controller

Name: _____
Roll No: _____


Head of Department Physics




Principal
Sir P.T. Science College
Modasa-370102, Gujarat



Add on Course on Electronic Instruments and Circuit

Registration Fee: Free

Last date: 30 July 2023



Organized by DEPARTMENT OF PHYSICS
Sir P. T. Science College, Morfisa

Requirements

- Have a basic understanding of algebra and mathematics.
- Interest in learning electronics and instruments.
- Open to all staff & students.

Description

Various electronic measurement applications range from scientific research to industrial quality control. In scientific research, electronic measurements are used to study the behavior of particles and waves and test theories and models. Industrial quality control applications use electronic measurements to ensure the production process specifications and standards. Other common applications include measuring the performance of electronic circuits and systems, troubleshooting and repairing electronic equipment.

This course includes principles and applications of electronics, diodes, transistors and ICs, and digital logic. The course is designed to provide students with a solid foundation in electronics and instruments. The course is organized into four sections:

- Basic concepts
- Basic Characteristics of electronics
- Characteristics and Applications
- Experiments

Who this course is for:

- High school students of B.Sc.
- Undergraduate college or school students taking an alternative or vocational course.

- Any two theoretical or practical activity of the above categories of chemical and electronic Sciences.

Aims of the programme:

- To develop the skills required to gather information from resources and use them;
- To provide an intellectually stimulating environment to develop skills and performance of students to the best of their potential;
- To give good based education in physics of the highest quality at the undergraduate level;
- To offer courses to the choice of the students;
- To enable students to perform experiments and interpret the results of observations, including an assessment of experimental uncertainties.

Objectives

By the end of the add on Course on Electronics Circuit Analysis the students should have attained a common level in basic of Electronics Circuit to complement the *uses* for their future courses and developed their experimental and data analysis skills through experiments at laboratories.

Electronic Instruments and Circuit

Week 1) Mead Semiconductor (MS) Junctions

Week 2) PN Junction

Week 3) Bipolar Junction Transistors (BJT)

Week 4) Measurement of Diodes, Transistors

For Certification require full marks evaluation and records.

Course Duration: 20 contacts

Course Commencement: From 1st August 2023

Course Coordinator: Prof Girish Veluris

IIDD-Dr R.H.Padua



Sir P.T.Science College, Modasa

Add on course:- Electronics Instruments & Circuit

Sr.No.	Roll No	Student Name	Gender	REG
1	1041	Durgaben Vijaybhai Kataria	Female	<i>[Signature]</i>
2	1043	Nirajkumar Ramchandra Chaudhari	Male	<i>[Signature]</i>
3	1051	Het Ravibhai Rauni	Male	<i>[Signature]</i>
4	1319	Divyaben Manubhai Damer	Female	<i>[Signature]</i>
5	1317	Krishna Maheshbhai Patil	Female	<i>[Signature]</i>
6	1318	Pradipbhai Ramchandra Kataria	Female	<i>[Signature]</i>
7	1319	Rohitbhai Bhulabhai Dabhi	Male	<i>[Signature]</i>
8	1326	Jayashankar Mahipatish Choubha	Male	<i>[Signature]</i>
9	1327	Kandrasinh Jagdish Zala	Male	<i>[Signature]</i>
10	1328	Karansinh Sakantsinh Parmar	Male	<i>[Signature]</i>
11	1329	Nehara Mohammed Kap	Female	<i>[Signature]</i>

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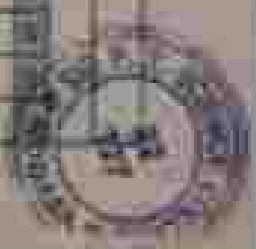


[Handwritten signature]
Sir P. T. Science College
Modasa-387015 Dist. Amreli

Sri P. T. Science College, Modasa

Add on course: Electronics Instruments & Circuit

Sl. No.	Student Name	Semester																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
1	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
27	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
29	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
30	Chandana Chhetriya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Signature

Sri P. T. Science College
Modasa, Dist. Mahesana, Gujarat

SIR P.T. SCIENCE COLLEGE, MODASA

Managed by
THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that
Class B.Sc., Semester-1, Roll No. has successfully
completed 30 Hours Add on certificate Course
"Electronics Instruments & Circuits" organized by
Department of Physics from 01-08-2023 to 02-09-2023 at
college campus.


Head of Department


Head of Department Physics


Principal
Sir P. T. Science College
Modasa-370211, Dist. Anand

Date: 05/09/2023
Place: MODASA

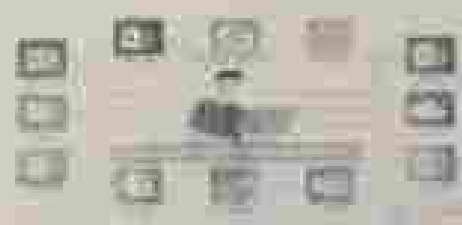




Add-on Course in Fundamentals of Computer

Registration Fee: Free

Last date: 1 July 2022



Organized by DEPARTMENT OF PHYSICS Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of technical software.
- Interest in learning a computer.

Description

Computer makes daily work easy!

This course includes Practical and theory aspects of understanding fundamentals of Computer and it includes various applications of computer with an emphasis on applications. **Fundamentals of Computer Course** is a **cardinal** four pillars.

- 1. Basic concepts
- 2. Basics
- 3. Methods of analysis
- 4. Experiments

Who this course is for:

- 1. All BSc and BEd students of AICTE.
- 2. University, college or school students taking a **Fundamentals of Computer Course**.
- 3. Anyone interested in gaining mastery of the core concepts of Computer Sciences.

OBJECTIVE: The course is designed to aim at providing a basic level appreciation preparation for the certificate level. After completing the course the students will be able to use the computer for basic purposes of processing his personal business letters, viewing information on internet (the web), sending mails etc. This allows a common man or housewife to be able a part of computer users for he making their digitally smart. This would also aid the PC maintenance program. This helps the small business entrepreneurs. Students are encouraged to study computer using this computer and apply in the world of Information Technology.

Fundamentals of Computer

MICROSOFT WORD

Starting word, Word processing basics, word wrapping, adding, deleting text, Saving, Saving as

and Copying text, Moving text, search and replace, tables, alignment, margins, font settings and

style, Margin settings and alignment, Bullets and Numbering, Setting text, Alignment, text

Creating letters as well as other documents, Headers and Footers, Bullets and Numbering,

Spelling and Grammar checking, Help, Save, Copying, Deleting, Print, Undo, Redo, Paste, Auto Save, Auto Text,

Printing a document, Short Keys, Help.

Manual or Microsoft Word, Microsoft Word, Microsoft Word.

WINDOWS AND WINDOW OPERATIONS

Basic features and operations of windows, desktop icons and folders, Navigation

Startup, Shutdown, Disk cleanup, This and My Computer, Windows Explorer, Control panel.

Working with windows, opening, closing, moving, resizing, maximizing, minimizing, closing, task

bar, Start menu, Shutting down, Windows Firewall, Windows Update, Windows Defender, Windows

For Certification course, fulfill your evaluation and practice

Course Duration: 30 contacts

Course Coordination: 8+101 2nd July 2022

Course Coordinator: Dr. H. H. Dhanu



SIR P. T. SCIENCE COLLEGE, MODASA

Fundamentals of Computers

Sl. No.	Roll No.	STUDENT NAME	MT	Sign
1	201	AKTAFHUSIN TAJUDDIH PIRAJA	M	<i>[Signature]</i>
2	202	DHARABAHEN NARENDRAZHAJ CHAUDHARI	F	<i>[Signature]</i>
3	203	DHITRUMI JAGDISHCHANDRA SONI	F	<i>[Signature]</i>
4	204	FIZA M SALIM KHAN	F	<i>[Signature]</i>
5	205	HARSHIL DINESHBHAI PATEL	M	<i>[Signature]</i>
6	206	JIGAR KUMAR KAMESHBHAI PATEL	M	<i>[Signature]</i>
7	207	KARAN KUMAR SHANKARBHAI PRASAPATI	M	<i>[Signature]</i>
8	208	KETKINBHAI VIDYANUBHAI PANCHAL	M	<i>[Signature]</i>
9	209	KRUPA KAMESHBHAI SARDAR	F	<i>[Signature]</i>
10	210	NEHA SAHIN RAMANBHAI RATHOD	F	<i>[Signature]</i>
11	211	PARTH DINESHKUMAR MAHETA	M	<i>[Signature]</i>
12	212	PINALBHAI DEVENDRABHAI PANCHAL	F	<i>[Signature]</i>
13	213	PINKALDEN VIJAYKUMAR RAJPAL	F	<i>[Signature]</i>
14	214	RADHABAHEN PRASANNABHAI DAMOR	F	<i>[Signature]</i>
15	215	RAKULNASHI BHAYANTIBHAI PRASAPATI	M	<i>[Signature]</i>
16	216	RAVINADEVI ISHVARIBHAI NARANDA	F	<i>[Signature]</i>
17	217	SHAHENUA SARFIBHAI BARDOLIA	F	<i>[Signature]</i>
18	218	SHITA SHRAVHENAD DUNNII	F	<i>[Signature]</i>
19	219	SHREYA BHARATKUMAR PATEL	F	<i>[Signature]</i>
20	220	SHUBHAM SANDESHU SHAYKAL	M	<i>[Signature]</i>
21	221	VIRAJKUMAR TITESHIBHAI CHAUDHARI	M	<i>[Signature]</i>



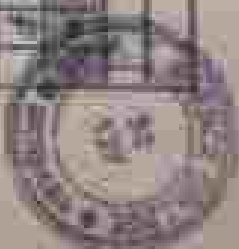
Sir P. T. Science College
Modasa-380011, Dist. Anand

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Sir P. T. Science College, Madurai

And on course 'Fundamentals of Computers

Sl. No	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	101. Madhavan, Vivekanand Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	102. Madhavan, Sathya Narayan Prasad	B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	103. Manoj Kumar, Pradeep Kumar	B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	104. Mahesh Kumar, Hari	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	105. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	106. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	107. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	108. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	109. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	110. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	111. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	112. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	113. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	114. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	115. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	116. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	117. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	118. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	119. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	120. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	121. Mahesh Kumar, Mahesh Kumar	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



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SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandrachariya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that _____

Class M.Sc., Semester 1, Roll No _____ has successfully completed 30 Hours Add on certificate Course

"Fundamentals of Computers" organized by Department of Physics from 02-07-2022 to 04-08-2022 at college campus.


SARAJ KUMAR
Head of Department

SARAJ KUMAR
Head of Department


Dr. P. K. PATEL
Head of Department




Dr. P. K. PATEL
Head of Department

Dr. P. K. PATEL
Head of Department
Sir P.T. Science College
Modasa-387011 Dist. Junagadh

Add-on Course on Basic Knowledge of Computer

Registration Fee: Free

Last date: 30 June 2019



Organized by DEPARTMENT OF PHYSICS
Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of basic of science.
- Interested in learning computer.

Description

"Micro Soft Office" makes desk top work easy!

- This course includes Practical's and text explanations of everything in 'Basic Knowledge of Computer Course', and it includes more than 8 Experiments with easy-to-understand explanations. 'Basic Knowledge of Computer Course'.

is organized into four sections:

1. Basic laws
2. Basic concepts
3. Hands On
4. Experiments

Who this course is for:

- First /Second year students of M.Sc.
- University, college or school students taking a 'Basic Knowledge of Computer Course'.
- Anyone interested in gaining mastery of the core concepts of Computer Sciences.

For Certification require fulfillments evaluation and presence



OBJECTIVE: The course is designed to aim at imparting a basic level appreciation programme for the common man. After completing the course the incumbent is able to use the computer for basic purposes of preparing his personal/business letters, viewing information on Internet (the web), sending mails etc. This allows a common man or housewife to be also a part of computer users list by making them digitally literate. This would also aid the PC penetration program. This helps the small business communities, housewives to maintain their small account using the computers and enjoy to the world of Information Technology.

Course Content

1. Knowing computer: What is Computer, Basic Applications of Computer, Components of Computer System, Central Processing Unit (CPU), VDU, Keyboard and Mouse, Other input/output Devices, Computer Memory, Concepts of Hardware and Software, Concept of Computing, Data and Information, Applications of IECT, Connecting keyboard, mouse, monitor and printer to CPU and checking power supply.
2. Operating Computer using GUI Based Operating System: What is an Operating System, Basics of Popular Operating Systems, The User Interface, Using Mouse, Using right Button of the Mouse and Moving Icons on the screen, Use of Common Icons, Status Bar, Using Menu and Menu-selection, Running an Application, Viewing of File, Folders and Directories, Creating and Renaming of files and folders, Opening and closing of different Windows, Using help, Creating Short cuts, Basics of O.S Setup, Common utilities.
3. Understanding Word Processing: Word Processing Basics, Opening and Closing of documents, Text creation and Manipulation, Formatting of text, Table handling, Spell check, language setting and thesaurus, Printing of word document.
4. Using Spread Sheet: Basics of Spreadsheet, Manipulation of cells, Formulas and Functions, Editing of Spread Sheet, printing of Spread Sheet.

Course Duration: 30 contacts

Course Commencement: From 1st August 2019

Course Coordinators: Dr R.H Parmar



SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that
Class M.Sc., Semester-1, Roll No. _____ has successfully
completed 30 Hours Add on certificate Course
"Basic Knowledge of Computer" organized by
Department of Physics from 01-08-2019 TO 01-10-2019 at
college campus.

Course Co-Ordinator

Head of Department Physics

Principal

Date: 3/10/2019

Place: MODASA



4th Qtr Course on Basic Knowledge of Computer

No	Name of Students	Date of Tests (1st-10th)										Date of Tests (11th-20th)									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	ADAM ALBERTO SANTIQUILAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	ALAN ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
3	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
9	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
10	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
11	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
12	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
13	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
14	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
15	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
16	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
17	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
18	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
19	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
20	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
21	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
22	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
23	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
24	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
25	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
26	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
27	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
28	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
29	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
30	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
31	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
32	ANDREW ALONSO VARGAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

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Sir P. T. Science College, Modasa

Managed by : The M. L. Gandhi Higher Education Society, Modasa.
(Accredited B⁺ by MAAC)

Post Box No. 1, MODASA - 380 010 (Gujarat)
Website : www.sptcmmodasa.in
Email : sptcmmodasa127@gmail.com

સર પી. ડી. શાસ્ત્રી ઈન્સ્ટીટ્યુટ, મોડાસા

મોબાઇલ નંબર : 98798

College Code : 177 / 23

જાણકારી - 19

Ref. No.

Date : / / 2019

Registration

Add on course on Basic Knowledge of Computer

Duration of Course: 01-08-2019 to 1-10-2019

Course Coordinator: Dr R H Parmar

Sr No	Name of Students	
1	BARSI KUNJIBHAI ANSULKARISHAN	Barshi K.
2	BRATIYA YOTOLA KAMLESHIBHAI	J. K. Shrivastava
3	CHUDHARI DEEPTESHKUMAR DURGESH	J. Chaudhary
4	GODHA ANUPOMKUMAR KANAKSHI	K. Anupom
5	JAVADAN VEDHANTHAKSHI JALDIPKUMAR	K. Javadan
6	JOSHI ADITYA SURESHKUMAR	Aditya Joshi
7	JESHWALA SHAMBAHAI SHAMBAHAI	J. Shambhai
8	KALAVANA VIDYADHAR SHAMBAHAI	V. K. Kalavana
9	KANANI VISHVESHKUMAR SHANTESH	K. Vishvesh
10	KANT TAJKUNJIBHAI BHASADAR	K. T. Kant
11	PANDYA BASHILASHRAMKUMAR	P. B. Pandya
12	PATE MITALSHI PRADIPKUMAR	M. P. Pate
13	PATE PRITHVISHANKAR	P. Prithvi
14	PATE NIVANSHANKAR JAGANNATH	P. Nivansh
15	PANJAPATI MANISHA MANISHKUMAR	M. Manisha
16	PANJAPATI SANDYAJYOTI KANESHKUMAR	P. Sandhya
17	SAVEDI NISHITHKUMAR V. MUKESH	S. Nishith
18	SHARMA CHANDAN KANESHKUMAR	S. Chandan
19	SHARMA ALISHAHAN ANANDKUMAR	S. Alishahan
20	SUTAR HARSHVANKAR JYOTIKUMAR	H. S. Sutar
21	SUTAR RAJESH SURESHKUMAR	R. S. Sutar
22	SUTAR UMMA ANANDKUMAR	U. Sutar





Add-on Course on Mathematica Software

Registration Fee: Free

Last date: 30 June 2023



Wolfram
Mathematica



Organized by DEPARTMENT OF PHYSICS

Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of basic algebra.
- Interest in learning computers.

Description

For Modasa Technical Computing Mathematica Software says:

The course includes practicals and test evaluations of everything in Mathematica Software, and it includes more than 8 experiments with step-by-step understand explanations. The Mathematica Software Course is organized like this:

- Basic concepts
- Basics
- Methods of analysis
- Experiments

Who should take it?

- High school year students (H.S.)
- University, college or school students taking a Micro Soft Office Course.
- Anyone interested in gaining mastery of the core concepts of Computer Science.

Mathematica Fundamentals

- a. Mathematical Documenting
- b. Numerical Types
- c. Introduction to Plots
- d. 2D Graphics
- e. 3D Graphics
- f. Essential Mathematics
- g. Solving Equations
- h. Polynomial Equations
- i. Derivatives
- j. Integrals
- k. Modular Arithmetic

You'll learn to

1. Use Wolfram Language to compute for you
2. Write your first program in Wolfram Language
3. Do computations with real-world data
4. Create graphics and animations
5. Work with state-of-the-art AI methods
6. Deploy your program to the web
7. Use modern functions for data processing and analysis
8. Improve your code with optimization methods

For Certification require additional evaluation and payment

Course Duration: 30 sessions

Course Commencement: Year 1st July 2023

Course Contributor: Dr. R.H. Puri



SIR P. T. SCIENCE COLLEGE, MODASA

Introduction of Mathematica Software

Sr.No.	Roll No.	STUDENT NAME	M/T	Signature
1	1301	ACTARHUSEN TAJUDDIN PIRAJDA	M	[Signature]
2	1302	DHARABAHEN HARENDRAHAI CHAUDHARI	F	[Signature]
3	1303	DHRUJAN JASDISHCHANDRA SONI	F	[Signature]
4	1304	FIZA M TALIM KHAN	F	[Signature]
5	1305	HARSHIL DINESHRAI PATEL	M	[Signature]
6	1306	JEGARAJUMAR RAMESHRAI PATEL	M	[Signature]
7	1307	KARANKUMAR SHANKARHAI PELJAPATI	M	[Signature]
8	1308	KAYUSHINI VISHALRAI PANDOL	M	[Signature]
9	1309	KRUPA RAMPHENAI SINGH	F	[Signature]
10	1310	NEHALBAHEN JAMALBHAI BATHOD	F	[Signature]
11	1311	PARTH DIVESHKUMAR BANIYA	M	[Signature]
12	1312	PHALANSHI DEVENDRAHAI PACHAL	F	[Signature]
13	1313	PINKALINI VIJAYKUMAR RAJHAL	F	[Signature]
14	1314	RADHABAHEN PRAMODHAI DANDGE	F	[Signature]
15	1315	RAJKUMAR JAYANTIBHAI PIVJAJAYI	M	[Signature]
16	1316	RAJNIBHAI GYANESHKHAI BARBHA	F	[Signature]
17	1317	SHANTHILA SARMAHAZ BARCOLIN	F	[Signature]
18	1318	SHIKHA BHARATBHAI DURESH	F	[Signature]
19	1319	SHIKHA BHARATBHAI PATEL	F	[Signature]
20	1320	SHUBHANGI SANGALHAI BHARSAK	M	[Signature]
21	1321	SHIVAJIKUMAR NITESHRAI CHAUDHARY	M	[Signature]



Sir P. T. Science College
Modasa 383115 (Gujarat)

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Sri P. T. Science College, Madhav
 Add: 4th cross, Interdisciplinary of Mathematics Pathway

Sl. No.	Name	Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



SRP
 R. T. Science College
 Madhav, 501502, Bangalore

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SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Himachal Pradesh University, Shimla

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that _____

Class M.Sc., Semester-3, Roll No. _____ has successfully completed 30 Hours Add on certificate Course

"Introduction of Mathematica Software" organized by Department of Physics from 01-07-2023 to 01-08-2023 at college campus.


Head of Department


Head of Department


Head of Department

Date: 01/08/2023
Place: MODASA



Principal
Sir P.T. Science College
Modasa-382713, Gujarat

Add on Course to Nano Satellite

Registration Fee: Free

Last date: 10 July 2022



Organized by DEPARTMENT OF PHYSICS

Sir P. T. Science College, Modasa

Requirements

- Have a basic understanding of algebra and mathematics.
- Interested in learning electricity and electronics.
- Own a scientific calculator.

Description

"The Electric Circuit Analysis Course" makes electricity and electronics calculations easy.

This course includes Practical's and text explanations of everything in electricity and electronics, and it includes units that I Experiments with easy-to-understand explanations. The Electric Circuit Analysis Course" is organized into four sections:

- Basic concepts
- Basic laws
- Methods of analysis
- Experiments

Who this course is for:

- First year students of B.Sc.
- University, college or school students taking an electricity or electronics course.
- Anyone interested in gaining mastery of the core concepts of electrical and electronic systems.

Final certification requires additional exercises and projects.

Course Duration: 20 sessions

Course Commencement: From 29th July 2022

Course Coordinator: Prof. Girish Verma

Phone: 079 23112000



Aims of the programme:

- To develop the skills required to gather information from courses and use them.
- To provide an intellectually stimulating environment to develop skills and enthusiasm of students to the best of their potential.
- To give need based education in physics of the highest quality at the undergraduate level.
- To offer courses to the choice of the students.
- To enable students to perform experiments and interpret the results of observation including an assessment of experimental uncertainties.

Objectives:

- To offer a simplified and increased exposure to satellite fabrication technologies, Nano satellite missions.
- To provide theoretical course on satellite technology.
- To provide intensive course on nano satellite fabrication, covering mission aspects, design, fabrication, assembly, integration & testing.
- To provide hands-on training to assemble, integrate and test a nano satellite.

The major topics covered in this module include:

- Nano satellite definition
- Features of Nano satellite and its comparison with large satellite
- Nano satellite Applications
- Nano satellite and laws governing their impact on space debris
- Design drivers for a Nano satellite
- Familiarization exercise with nanosatellite systems
- Reliability & Quality Assurance
- Nano satellite configuration exercise assigned to the individual groups

Hands-on training on nano satellite assembly, integration and testing. The major topics covered in this module include:

- Introduction to assembly, integration and testing activities
- Major milestones of spacecraft integration and their importance
- Documents related to AIT activities
- Handling procedures for spacecraft system
- Interface checks (mechanical and electrical) and their importance
- AIT software



SIR P.T. SCIENCE COLLEGE, MODASA

Managed by

THE M.L. GANDHI HIGHER EDUCATION SOCIETY MODASA

Affiliated with Hemchandracharya North Gujarat University, Patan

ADD ON CERTIFICATE COURSE

Organized by Physics Department



This is to certify that

Class B.Sc., Semester-3, Roll No. has successfully completed 30 Hours Add on certificate Course.

"Nano Satellite Design" organized by Department of Physics from 20-07-2022 TO 25-08-2022 at college campus.


Head of Department


Head of Department, Physics


Principal

DATE: 04/09/2022
Place: MODASA



Sir P. T. Science College
Modasa-383319, Dist. Anand



SATELLITE DESIGN WORKSHOP



Key Features:-

- Training Kit for each participant*
- Make your own Satellite Model.
- Full day session of workshop.
- Demo. of Design Softwares.
- Application of satellite.
- Intro. to Ground Station Working
- Certificate to each participant.
- For BSc, Diploma, BE & School students
- Demo. of Up & Down linking by Arduino.

**Moving towards
Satellite
Technology**

Contact soon for more details.....



Sir P. T. Science College, Modasa

Managed by : The M. L. Gandhi Higher Education Society, Modasa.

(Accredited B⁺ by NAAC)

Post Box No. 1, MODASA - 383 315 (Gujarat)

Website : www.aptecmo.ac.in

Email : Sirptscience127@gmail.com

सर पी. टी. सायन्स कॉलेज, मोडासा

मोडासा-३८३ ३१५ (गुजरात)

College Code : 127 / 32

गौण संकेत - ०३

Date : २९ / ०७ / २०२२

Ref.No. ११/२०२२-२३

TEAM DETAILS for

IN-SPACE presents CANSAT India 2022-23 organized by ASI.

FACULTY COORDINATOR/ADVISOR & MENTOR DETAILS

(1 Faculty advisor & up to 2 mentors)

S.No	Full Name	Role	Email	Contact
1	Prof. Girish Vyasrao	Faculty Coordinator	gk1958@yahoo.com	9428942766
2	Dr. R. H. Parmar	Mentor	01322000000@gmail.com	9428942766
3	Prof. Atul Makvana	Mentor	atul_gm2017@gmail.com	8868332000

STUDENT/TEAM DETAILS

(Minimum 1 & maximum 8 members)

S.No	Full Name	Institute ID	Course	Branch	Year of Graduation	Role
1	Prajapati Kaminiben Kirtishwar	3011	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
2	Khant Shradhaben Subhashbhai	3028	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
3	Dudhmal Rukalyabenu Atalhusan	3441	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
4	Prajapati Sneha Anilkumar	3448	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
5	Chaudhari Amitkumar Narendrabhai	3001	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
6	Pandya Yagna Sanjaybhai	3293	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
7	Bhansal Ravi Somabhai	3024	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member
8	Khant Saurabhkumar Anandbhai	3025	B.Sc Sem-3	Science	B.Sc 2 nd Year	Member

NOTE: In case of any changes in the team after the registration, an official request should be made from the faculty coordinator/mentor regarding the same to in@spaceindia.com, in@spaceindia.org, in@spaceindia.edu with a subject line: Team Change CANSAT India in-SPACE.


Principal

Sir P. T. Science College

Modasa-383315, Dist. Anant

Date: 29-07-2022

Place: Modasa

