

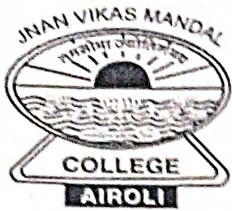


JNAN VIKAS MANDAL'S

Amritlal Raichand Mehta Degree College of Arts
Diwali Maa Degree College of Science
Mohanalal Raichand Mehta College of Commerce
Padmashree (Dr.) R.T. Doshi Degree College of Computer Science
Plot no.9, Sector -19, Airoli, Navi Mumbai

Program	B.Sc.
Year	2023-24
Eligibility Class	T.Y.B.Sc. (Chemistry)
Course	Bridge Course in Science
Number of Lectures	30
Objectives of the Course	
<ul style="list-style-type: none">• To create strong problem-solving skills as a science student along with an understanding of the approach, methods of preparation and analysis in Chemistry for a successful career in advancing technology. Its science and design components prepare students to work as professional in Chemistry subject• To build concrete foundation for their core branch as a thinker, inter disciplinary thoughts and socio- technical issues in field.• To create advance applied knowledge of Chemistry as a subject of the foundation of Science.• A breather, to prepare themselves before courses commence.	
Course Outcome	
<ul style="list-style-type: none">• Student will be able to apply knowledge of basic theories of Chemistry in core subject of Science.• Student will be able to create an experimental approach in applied theories of science in problem solving technical problems.• Student will be able to associate natural phenomenon with technological advancement.• It has helped students for enhancing critical thinking skills through self-exploration and class experiences.	





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SCIENCE DEPARTMENT

BRIDGE COURSE SYLLABUS (2023-24)

LEVEL III

The Bridge Course for T. Y. B. Sc. (Chemistry) was divided into 5 modules. Following faculty members have undertaken the course:

- Dr. Harshada Niju: HN
- Asst. Prof. Sandhya Patil: SP
- Asst. Prof. Savita Kumari: SK
- Dr. Shweta Rathore: SR

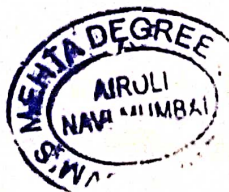
Asst. Prof. Savita Kumari

Convener

Dr. Leena Sarkar

HOD (Chemistry) & Principal

PRINCIPAL
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SCIENCE DEPARTMENT

BRIDGE COURSE SYLLABUS (2023-24)

LEVEL III

	MODULE-1	6Hrs.
1.1.	Molecular Spectroscopy: Terms involved, Beer-Lamberts law, spectrum of radiations. Types of spectra: rotational, vibrational, rotational-vibrational	H.N.
1.2.	Chemical Thermodynamics: Basic concepts and terms involved. Chemical Kinetics: Terms, rate of reaction, rate constant, order of the reaction	H.N.
1.3.	Nuclear Chemistry: Types of radiation, radioactive elements, law of disintegration	H.N.
1.4	Surfactant chemistry: absorption & adsorption differences, types of adsorption Colloidal state: Particle size, true solution, suspensions, colloidal with examples	H.N.
1.5	Concept of concentration	H.N.
1.6	Surface Chemistry	H.N.
	MODULE-2	6Hrs.
2.1.	Symmetry and elements of symmetry 3L	S.R.
2.2	M.O.T of homoatomic molecules 3L	S.R.
	MODULE-3	6Hrs.
3.1.	Concepts of writing organic reaction mechanism, use of curved arrows	S.K
3.2.	Reaction Mechanism: Types of reactions, Electronic effects, Directing effects, types of reagents	S.K
3.3	Basic terminologies in stereochemistry	S.K
3.4	IUPAC Nomenclature for organic compounds	S.K.
3.5	Concept of Green Chemistry	S.K.
3.6	Introduction to spectroscopy	S.K



	MODULE-4	6Hrs.
4.1	Sampling: Purpose, difficulties encountered	S.P
4.2	Methods of sampling: solids, liquids and gases	S.P
4.3	Solvent Extraction: Principle, batch and continuous extraction	S.P
4.4	Separation methods: chromatography	S.P
4.5	Chemical Calculation: molality, normality	S.P.
4.6	Chemical Calculation: molarity, Percent composition	S.P.
	MODULE-5	6Hrs.
5.1	General Introduction to Drug chemistry, Drugs from nature	S.R.
5.2	Basic terminologies used in drug chemistry	S.R.
5.3	Classification of drugs	S.R.
5.4	Introduction to dye Chemistry- Historical Development	S.K
5.5	Chemistry of colour in nature: Occurrence, chemical name & structure	S.K
5.6	Aromatic Electrophilic substitution reactions: Nitration, sulphonation, halogenations, alkylation, acylation, diazotization	S.K

Savita
Asst. Prof. Savita Kumari

Convener

Leena
Dr. Leena Sarkar

HOD (Chemistry) & Principal

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SCIENCE DEPARTMENT
BRIDGE COURSE SYLLABUS (2023-24)
List of Enrolled Students

S. No.	NAME OF STUDENT
1	Omkar Nanavare
2	Madavi Kanse
3	Avneesh Yadav
4	Ritika Giri
5	Pratiksha Borde
6	Parul Singh
7	Sanika Pote
8	Pooja Shah
9	Riya Vishwakarma
10	Nikita Lagade
11	Jayawant Lotale

Savita

Asst. Prof. Savita Kumari

Convener

Leena

Dr. Leena Sarkar

HOD (Chemistry) & Principal

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SCIENCE DEPARTMENT
BRIDGE COURSE SYLLABUS (2023-24)
Assessment Record

S. No.	NAME OF STUDENT	TEST-1 14 Mks. (H.N)	TEST-2 20 Mks. (S.P)	TEST-3 20 Mks. (S.K)	TEST-4 10 Mks. (S.R)	Total out of 64
1	Omkar Nanavare	A	14	16	3	33
2	Madavi Kanse	A	08	11	2	21
3	Avneesh Yadav	4	11	13	1	30
4	Ritika Giri	9	16	14	4	43
5	Pratiksha Borde	A	10	11	1	22
6	Parul Singh	A	A	A	A	A
7	Sanika Pote	A	A	12	A	12
8	Pooja Shah	A	A	A	A	A
9	Riya Vishwakarma	9	15	14	4	38
10	Nikita Lagade	7	12	14	1	34
11	Jayawant Lotale	A	A	A	A	A

Savita
Asst. Prof. Savita Kumari
Convener

Neena
Dr. Leena Sarkar
HOD (Chemistry) & Principal



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Plot no.9, Sector -19, Airoli, Navi Mumbai

Bridge Course-Timetable
13th -19th June 2023
Class: T.Y.B.Sc.

Time	Day					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9.00 to 10.00 am	(S.R.)	(S.P)	(S.P.)	(S.K)	(H.N.)	(S.P.)
10.00 to 11.00 am	(S.K)	(S.P)	(S.R.)	(S.P.)	(S.R.)	(H.N.)
11.20 to 12.20 pm	(S.P.)	(S.K)	(H.N.)	(H.N.)	(S.K)	(S.R.)
12.20 to 1.20 pm	(H.N.)	(S.R.)	(S.K)	(S.R.)	(H.N.)	(S.K.)
1.30 to 2.30 p.m.	Assignment (S.P)	Assignment (S.R)	Assignment (S.R)	Assignment (S.K)	Assignment ((S.K)	Assignment (H.N)

H.N – Dr. Harshada Niju S.P – Mrs. Sandhya Patil S.K – Miss Savita Kumari S.R – Dr. Shweta Rathore

Sign of Class teacher -

Sign of H.O.D-

Neena
Sign of Principal-

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SCIENCE DEPARTMENT BRIDGE COURSE SYLLABUS (2023-24) Summary Report

The goals of the Bridge course were accomplished successfully. Before the course begins, the course was designed to assist students understand the fundamental concepts of core themes. The course aided students in gaining a better understanding of what to expect at their new academic level and in settling into their new program. It aided pupils in gaining self-assurance and learning new talents that they may utilize in their future academic pursuits. Overall, it gave the learner the opportunity to:

- Develop strong problem-solving skills as a science student
- Develop a solid foundation for their core branch as a thinker, including thoughts from other disciplines and socio-technical challenges in the field
- To develop advanced practical knowledge of several scientific subjects

Asst. Prof. Savita Kumari

Convener



Dr. Leena Sarkar

HOD (Chemistry) & Principal

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JNAN VIKAS MANDAL'S DEGREE COLLEGE

NAAC RE-ACCREDITED 'A' GRADE (CGPA 3.33)

Plot No. 9, Sector-19, Airoli Navi Mumbai

Certificate

This is to certify that <<Name>> of Class T.Y.B.Sc. (Chemistry) has participated in 30 hours bridge course organized by Department of Science, JVM's Degree College.

Savita

Ms. Savita Kumari
Convener

Leena

Dr. Leena Sarkar
Principal

Savita

Asst. Prof. Savita Kumari

Convener

Leena

Dr. Leena Sarkar

HOD (Chemistry) & Principal

PRINCIPAL

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JVM'S MEHTA DEGREE COLLEGE

Bridge Course :- 2023-24

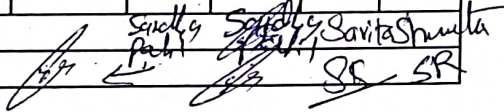
T.Y.B.Sc. - SEM -3/4

Date: 13/06/2023

Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Maclavi kamise	Chem		Maclavi	Maclavi	Maclavi
2	Riya Vishwakarma		Riya	Riya	Riya	Riya
3	Ritika Gaisel	CHEM	Ritika	Ritika	Ritika	Ritika
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Teacher Name :

Teacher Sign :



 Savita Shrivastava



Seena

PRINCIPAL

JHAN VIKAS MANDAL'S
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JVM'S MEHTA DEGREE COLLEGE

Bridge Course :- 2023-24

T.Y.B.Sc. - SEM 5/6

Date: 14/06/2023

Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Riya vishwakarma	CHEM	Riya v	Riya v	Riya v	Riya v
2	Ritika Gaisu	CHEM	Ritika	Ritika	Ritika	Ritika
3	omkar Namavare	chem	omkar	omkar	omkar	omkar
4	Nikita lagade	chem	Nikita	Nikita	Nikita	Nikita
5	Madavi Karase	chem	Madavi	Madavi	Madavi	Madavi
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Teacher Name :

S.R. *[Signature]* / Harshad Sarita

Teacher Sign :

[Signature] / Harshad S.S.



Keena
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 NAVI MUMBAI-400 70A

JVM'S MEHTA DEGREE COLLEGE						
Bridge Course :- 2023-24						
T.Y.B.Sc. - SEM - 3/6						
Date: 15/06/2023						
Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Nikita Lagade.	chem	Nikita	Nikita	Nikita	Nikita
2	Riya vishwakam	chem	Riya	Riya	Riya	Riya
3	Ritika Gaur	chem	Ritika	Ritika	Ritika	Ritika
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Teacher Name :			Sande Sandhya	Shreeta		
Teacher Sign :			<i>[Signature]</i>	<i>[Signature]</i>		



Keena
 PRINCIPAL
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 Plot No.9, SEC.- 19, AIROLI,
 NAVI MUMBAI-400 705

JVM'S MEHTA DEGREE COLLEGE

Bridge Course :- 2023-24

T.Y.B.Sc. - SEM 5/6

Date: 16/06/2023

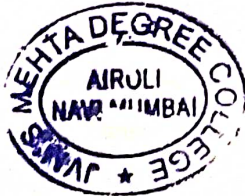
Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Riya vishwakam	Chem	Riya	Riya	Riya	Riya
2	Avanish yadao	Chem	Avanish	Avanish	Avanish	Avanish
3	Nikita Lagade	Chem	Nikita	Nikita	Nikita	Nikita
4	Omkar Namavare	Chem	Omkar	Omkar	Omkar	Omkar
5	Ritika giri	Chem	Ritika	Ritika	Ritika	Ritika
6	Samika Pote	Chem	Samika	Samika	Samika	Samika
7	Pratiksha Borda	Chem	Borda	Borda	Borda	Borda
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Teacher Name :

Hanbaat

Shruti Savick Hanbaat
S.R. S.R.

Teacher Sign :



Neena
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Plot No.9, SEC.- 19, AIROLI,
NAVI MUMBAI-400 700

JVM'S MEHTA DEGREE COLLEGE

Bridge Course :- 2023-24

T.Y.B.Sc. - SEM -5/6

Date: 17/06/23

Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Riya vishevakam	Chem	Riya	Riya	Riya	Riya
2	Nikita Lagade	Chem	Nikita	Nikita	Nikita	Nikita
3	Madavi Kanase	Chem	Madavi	Madavi	Madavi	Madavi
4	Avaneshyamolav	Chem	Avaneshyamolav	Avaneshyamolav	Avaneshyamolav	Avaneshyamolav
5	Sanika Pote	Chem	Sanika	Sanika	Sanika	Sanika
6	Pratiksha Borade	Chem	Pratiksha	Pratiksha	Pratiksha	Pratiksha
7	Omakar Nirmalve	Chem	Omakar	Omakar	Omakar	Omakar
8	Ritika Gusi	Chem	Ritika	Ritika	Ritika	Ritika
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Teacher Name :

Teacher Sign :

Haresh S. Patil
SR S.P



Neena
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JVM'S MEHTA DEGREE COLLEGE

Bridge Course :- 2023-24

T.Y.B.Sc. - SEM 5/6

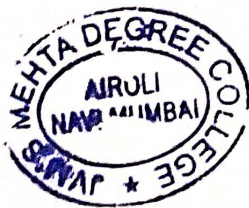
Date: 19/06/2023

Sr. No.	Name of the Student	Subject	Lec-1	Lec-2	Lec-3	Lec-4
1	Madavi Kanase	chem	Madavi	Madavi	Madavi	Madavi
2	Pitika Guxi	chem	Pitika	Pitika	Pitika	Pitika
3	Nikita Lagade	chem	Nikita	Nikita	Nikita	Nikita
4	Anantesh Yadav	chem	A	A	A	A
5	Pratiksha Borda	Chem	Borda	Borda	Borda	Borda
6	Riya vishwakarma	chem	Riya	Riya	Riya	Riya
7	Omkar Plomaner	chem	Omkar	Omkar	Omkar	Omkar
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Teacher Name :

Teacher Sign :

Sarita S. Haldar
S.S.P. Haldar



Seena
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