



JNAN VIKAS MANDAL'S  
Amratlal Raichand Mehta Degree College of Arts  
Diwali Maa Degree College of Science  
Mohanlal Raichand Mehta College of Commerce  
Padmashree (Dr.) R.T. Doshi Degree College of Computer Science  
Plot no.9, Sector -19, Airoli Navi Mumbai

Date: 26.04.2022

**NOTICE**

All faculties of the Science Department are hereby informed that tomorrow on 27.04.2022 there will be meeting at 1 p.m. in Principal's room.

All the members are requested to be present for the same.

**AGENDA**

- 1] To discuss about conducting "Bridge Course" for the academic year.
- 2] Any other matter with the permission of Chairperson.



*Leena*  
Dr. Leena Sarkar

(Principal & Chairperson)

**PRINCIPAL**  
JNAN VIKAS MANDAL'S  
M.R. MEHTA COLLEGE OF COMMERCE  
D.M. COLLEGE OF SCIENCE  
A.R. MEHTA COLLEGE OF ARTS  
Dr. R.T. DOSHI COLLEGE OF COMPUTER SCIENCE  
Plot No.9, SEC-19, AIROLI,  
NAVI MUMBAI-400 708



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Date: 27.04.2022

**Minutes of the Meeting**

Meeting was held with the faculties of Science Department on 27.04.2022 at 1.00 p.m chaired by Principal Dr. Leena Sarkar

**Following points were discussed in the meeting :-**

- 1] Principal Dr. Leena Sarkar madam advised that faculties from all department of science should conduct "Bridge Course" for S.Y. and T.Y. B.Sc. class with an objective to make students familiar with the concepts related to the syllabus to be dealt in the coming year
- 2] In this meeting, time table and syllabus for Bridge Course was finalized.
- 3] Meeting was end with vote of thanks.

**Following members were present in the meeting: -**

1. Dr. Leena Sarkar [ Principal] *Leena Sarkar*
2. Asst. Prof. Sandhya Patil *Sandh.*
3. Asst. Prof. Harshada Niju *Harshada*
4. Dr. Prajakta Kadu *P. Kadu*
5. Dr. Prajakta Kadu *P. Kadu*
6. Asst. Prof. Savita Kumari *Savit*
7. Dr. Shweta Rathore *Shweta*
8. Asst. Prof. Sagar Shinde *Sagar*
9. Asst. Prof. Nishant Bist
10. Asst. Prof. Pintoo Jiaswar *P. Jiaswar*

*Sandh.*  
Asst. Prof. Sandhya Patil  
Science Incharge



*Leena*  
Dr. Leena Sarkar  
Principal & Chairperson)

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## JNAN VIKAS MANDAL'S (Linguistic Minority)

Mohanlal Raichand Mehta College of Commerce

DiwaliMaa College of Science

Amritlal Raichand Mehta College of Arts

Dr. R.T. Doshi College of Computer Science

Plot No.9, Sector -19, Airoli, Navi Mumbai 400708

<b>Program</b>	<b>B.Sc.</b>
<b>Year</b>	<b>2022-23</b>
<b>Eligibility Class</b>	<b>T.Y.B.Sc. Physics</b>
<b>Course</b>	<b>Online Bridge course in Science</b>
<b>Number of Lectures</b>	<b>30</b>
<b>Objectives of the Course</b>	
<ul style="list-style-type: none"> <li>To create strong problem solving skills as a science student along with an understanding of the approach, methods, and requirements of scientific design for a successful career in advancing technology. Its science and design components prepare students to work as professional physics student.</li> <li>To build concrete foundation for their core branch as a thinker, inter disciplinary thoughts and socio- technical issues in field.</li> <li>To create advance applied knowledge of Physics as a subject of foundation of Science.</li> <li>A breather, to prepare themselves before courses commence.</li> </ul>	
<b>Course Outcome</b>	
<ul style="list-style-type: none"> <li>Student will be able to apply knowledge of basic theories of physics in core subject of Science.</li> <li>Student will be able to create an experimental approach in applied theories of science in problem solving technical problems.</li> <li>Student will be able to associate natural phenomenon with technological advancement.</li> <li>It has helped students for enhancing critical thinking skills through self-exploration and class experiences.</li> </ul>	

### Learning Resources:-

#### ❖ Course Material:-

- Presentations, Video and Course planning are provided.





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**SCIENCE DEPARTMENT**  
**BRIDGE COURSE SYLLABUS (2022-2023)**

**LEVEL-III (13<sup>th</sup> June-18<sup>th</sup> June 2022)**

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

- Asst. Prof. Nishant Bist: N.B.
- Asst. Prof. Sagar Shinde: S.S.

  
Asst. Prof. Sandhya Patil  
Science Incharge

  
Dr. Leena Sarkar  
Principal & Chairperson)



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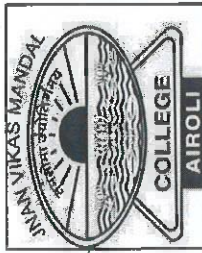
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**SCIENCE DEPARTMENT**  
**BRIDGE COURSE CONTENT- 2022-23**

**LEVEL-III (For T.Y.B.Sc. Physics) 13<sup>th</sup> -19<sup>th</sup> June 2022**

	<b>MODULE-1</b>	<b>6Hrs.</b>
1.1.	General Introduction to Number System	S.S
1.2.	Introduction to Code conversion	S.S
1.3.	Introduction to Scalars and vectors	S.S
1.4	The Divergence and Curl	S.S
1.5	General Introduction to Transducers	S.S
	<b>MODULE-2</b>	<b>6Hrs.</b>
2.1.	Brief introduction to Probability	S.S
2.2	Introduction to binomial distribution	S.S
2.3	The exponential and trigonometric functions	S.S
2.4	The probability of a distribution	S.S
2.5	Black-body radiation	S.S
	<b>MODULE-3</b>	<b>6Hrs.</b>
3.1.	Introduction to Electrostatics	S.S
3.2.	Introduction to Magnetostatics	S.S
3.3	Brushing up the Calculus: Integration	1.5hr NB
3.4	Derivative	1.5hr NB
	<b>MODULE-4 -N.B</b>	<b>6Hrs.</b>
4.1	Introduction to quantum mechanics	2HR NB
4.2	Operators	2HR NB
4.3	Atomic models	2HR NB
	<b>MODULE-5 -N.B</b>	<b>6Hrs.</b>
5.1	Semiconductor	1HR NB
5.2	Types of semiconductor	1HR NB
5.3	PN junction	2HR NB
5.4	Electrical properties of solids	2HR NB





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## Bridge Course-Timetable 13<sup>th</sup> -19<sup>th</sup> June 2022

Class - T.Y.B.Sc. Physics

Academic year: 2022-23

Time	Day						
Day	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
9.00 to 10.00 am	N.B	S.S	S.S	N.B	S.S	S.S	
10.10 to 11.00 am	N.B	S.S	S.S	N.B	S.S	N.B	
11.20 to 12.20 pm	S.S	N.B	N.B	S.S	N.B	N.B	
12.30 to 1.20 pm	S.S	N.B	N.B	S.S	N.B	S.S	

S.S - Mr. Sagar Shinde

N.B - Mr. Nishant Bist

Sign of Class teacher -



Sign of H.O.D.-

*N. S. Doshi*  
Sign of Principal-  
PRINCIPAL

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❖ **Books:- For Faculty coordinator:-**

1. Conceptual Physics, Hewitt, Pearson Education
2. Principles of Physics, Halliday, Resnik and Walker, Wiley India
3. Six ideas that shape physics, Tata Mc Grawhill
4. Flying Circus of Physics, Jerald Walker, Wiley India
5. Quantum Mechanics – Ajay Ghatak Loknathan
6. Solid State Physics – S.O. Pillai

		Enrolled Students	
Sr.No.	Roll No.	Student's Name	
1	1301	GUPTA VINOD	
2	1302	JADHAV TANMAY ANIL	
3	1303	POI SONALI	
4	1304	ROKADE VEDANT SUBHASH	
5	1305	SINGH PRIYANSHI	

		Enrolled Students	
Sr.No.	Roll No.	Student's Name	Assignment Marks out of 20
1	1301	GUPTA VINOD	16
2	1302	JADHAV TANMAY ANIL	14
3	1303	POI SONALI	17
4	1304	ROKADE VEDANT SUBHASH	14
5	1305	SINGH PRIYANSHI	19

