

2nd sem elect.

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)



STUDENT'S ATTENDANCE REGISTER

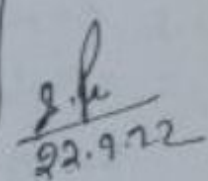
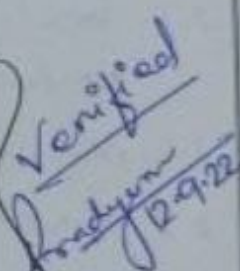
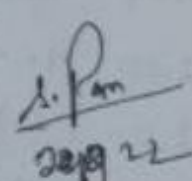
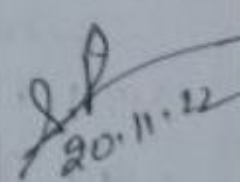
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Day	09:35	11:35	12:25	1:15	
MON		EEM			
TUE				EEM	
WED			EEM		
SAT	EEM				

HP/w

Year/ Session	2022-2023 (winter), 2nd year
Semester & Branch	3rd & Electrical
Subject with Code	EEM (Electrical Engineering material Th-4)
Name of the Faculty Member	Dr. Raju Padhi

B.I.E.T.

SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
1. <u>Conducting materials:</u>			
1.1 Introduction	19/09/22	<u>Pooja</u>	 J.P. 22.9.22
1.2 Resistivity factors affecting resistivity.	20/09/22	<u>Pooja</u>	
1.3 Classification of conducting materials into low resistivity & high resistivity materials.	21/09/22	<u>Pooja</u>	
1.4 Low resistivity materials & their applications (Copper, silver, gold, Aluminium, steel).	22/09/22	<u>Pooja</u>	
1.5 Stranded conductors.	24/09/22	<u>Pooja</u>	 Verified Pradyum 22.9.22
1.6 Bundled conductors	26/09/22	<u>Pooja</u>	
1.7 Low resistivity copper alloys	27/09/22	<u>Pooja</u>	
1.8 High Resistivity materials & their Applications (Tungsten, Carbon, platinum, Mercury)	28/09/22	<u>Pooja</u>	 J.P. 28.9.22
1.9 Superconductivity	29/09/22	<u>Pooja</u>	
1.10 Superconducting materials	11/10/22	<u>Pooja</u>	 J.P. 20.11.22
1.11 Application of superconductor materials.	12/10/22	<u>Pooja</u>	
	15/10/22	<u>Pooja</u>	
	17/10/22	<u>Pooja</u>	
	18/10/22	<u>Pooja</u>	
	19/10/22	<u>Pooja</u>	
	20/10/22	<u>Pooja</u>	

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
2. <u>Semiconducting materials</u> :-			
2.1 Introduction			
2.2 Semiconductors			
2.3 Electron energy & energy band theory.	22/10/22	Pooja	S. Pradeep 22.10.22
2.4 Excitation of atoms.	25/10/22	Pooja	S. Pradeep 31.10.22
2.5 Insulators, semiconductors and conductors.	28/10/22	Pooja	
2.6 Semiconductor materials	28/10/22	Pooja	
2.7 Covalent Bonds	29/10/22	Pooja	
2.8 Intrinsic semiconductors	31/10/22	Pooja	
2.9 Extrinsic semiconductors			
2.10 N-type materials			
2.11 P-type materials	1/11/22	Pooja	
2.12 Minority & majority carriers			
2.13 Semiconductor material			
2.14 Application of semiconductor materials.			
2.14.1 Rectifiers			
2.14.2 Temperature sensitive resistors or thermistors	02/11/22	Pooja	S. Pradeep 2.11.22
2.14.3 Photoconductive cells			

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.	
2.14.4 Photovoltaic cells	3/11/22	<i>Pooja</i>	<i>S. Puro</i> 3/11/22	
2.14.5 Varistors				
2.14.6 Transistors	5/11/22	<i>Pooja</i>		
2.14.7 Hall effect generators				
2.14.8 Solar power.				
<u>3. Insulating materials:</u>				
3.1 Introduction	7/11/22	<i>Pooja</i>	<i>S. Puro</i> 7.11.22	
3.2 General properties of insulating materials				
3.2.1 Electrical properties	9/11/22	<i>Pooja</i>	}	
3.2.2 Visual properties	10/11/22	<i>Pooja</i>		
3.2.3 Mechanical properties				
3.2.4 Thermal properties	12/11/22	<i>Pooja</i>		
3.2.5 Chemical properties	14/11/22	<i>Pooja</i>		<i>S. Puro</i> 14.11.22
3.2.6 Ageing				
3.3 Insulating materials - Classification, properties, applications.	15/11/22	<i>Pooja</i>		
3.3.1 Introduction				
3.3.2 Classification of insulating materials on the basis physical &	16/11/22	<i>Pooja</i>	<i>S. Puro</i> 16/11/22	

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Chemical structure.			
3.4 Insulating gases	17/11/22	<u>Pooja</u>	<u>S.P.</u>
3.4.1 Introduction	19/11/22	<u>Pooja</u>	
3.4.2 Commonly used insulating gases.			
<u>4. Dielectric Materials :-</u>			
4.1 Introduction	21/11/22	<u>Pooja</u>	<u>S.P.</u> 29.11.22
4.2 Dielectric constant of permittivity	22/11/22	<u>Pooja</u>	
4.3 Polarization	23/11/22	<u>Pooja</u>	
4.4 Dielectric loss	25/11/22	<u>Pooja</u>	
4.5 Electric conductivity of Dielectrics and their Break Down.	26/11/22	<u>Pooja</u>	
	28/11/22	<u>Pooja</u>	
4.6 Properties of Dielectrics	29/11/22	<u>Pooja</u>	
4.7 Applications of Dielectrics.	30/11/22	<u>Pooja</u>	
<u>5. Magnetic Materials :-</u>			
5.1 Introduction	3/12/22	<u>Pooja</u>	<u>S.P.</u> 5/12/22
5.2 Classification	5/12/22	<u>Pooja</u>	
5.2.1 Diamagnetism	5/12/22	<u>Pooja</u>	
5.2.2 Para magnetism			
5.2.3 Ferromagnetism			
5.3 Magnetization curve	7/12/22	<u>Pooja</u>	
5.4 Hysteresis	8/12/22	<u>Pooja</u>	

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.	
5.5 Eddy currents	9/12/22	<i>Pooja</i>	<i>[Signature]</i>	
5.6 Curie point				
5.7 Magnetic -striction				
5.8 Soft & Hard magnetic Materials	10/12/22	<i>Pooja</i>		
5.8.1 Soft magnetic materials	12/12/22	<i>Pooja</i>		
5.8.2 Hard magnetic materials				
6. <u>Materials for special purposes:-</u>				
6.1 Introduction	13/12/22	<i>Pooja</i>		
6.2 Structural Materials	14/12/22	<i>Pooja</i>		
6.3 Protective Materials	15/12/22	<i>Pooja</i>		
6.3.1 Lead	17/12/22	<i>Pooja</i>		
6.3.2 Steel tapes, wires & strips				
6.4 Other materials	19/12/22	<i>Pooja</i>		
6.4.1 Thermocouple materials	20/12/22	<i>Pooja</i>		
6.4.2 Bimetals	21/12/22	<i>Pooja</i>		
6.4.3 Soldering materials	22/12/22	<i>Pooja</i>		
6.4.4 Fuse & Fuse materials				
6.4.5 Dehydrating materials				
<i>verified</i> <i>[Signature]</i> <i>12.9.22</i>				