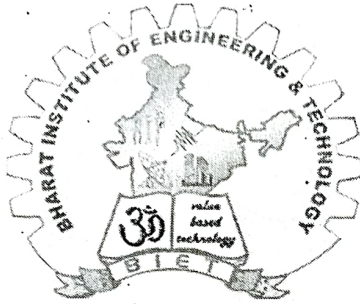


BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



STUDENT'S ATTENDANCE REGISTER

Time	9:05	9:55	12:25	01:55	
Day	9:55	10:45	01:15	02:45	
Mon				EM&I	
Tue	EM&I				
Wed					
Thu					
Fri			EM&I		
Sat		EM&I			

Year/ Session : 2023 (winter)

Semester from Date: 01/08/2023 To Date : 30/11/2023

Semester & Branch

3rd SEMESTER, [E&TC]

Subject with Code

EM & I

Name of the Faculty Member

PURNA CH. NAHAK

No of Weeks:

No of Days per Week Class Allotted : 04

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
AUG	1 st		<u>UNIT-1</u> <u>QUALITIES OF MEASUREMENT</u>
		01/08/23	1.1. Discuss the static characteristics.
		04/08/23	1.2. Accuracy, sensitivity; reproducibility & static error of instruments.
			1.3. Dynamic characteristics & speed of instruments.
		05/08/23	1.4. Errors of an instrument & explain various types.
AUG			<u>UNIT-2</u> <u>INDICATING INSTRUMENTS</u>
		07/08/23	2.1. Introduction to indicator & display devices & its types.
			Seen <i>Joedymme</i>

Signature of the Faculty:

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01/08/23

Signature of the Principal/Course Co-ordinator/HOD:

Seen
11/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
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AUG

2nd

02/08/23

2.2. Basic Principle of meter movement, permanent magnet moving coil movement & its advantages & disadvantages;

11/08/23

2.3. operation of moving iron instrument.

12/08/23

14/08/23

2.4. Basic principle of operation of D.C ammeter & multi range ammeter.

AUG

18/08/23

2.5. Basic principle of operation of A.C ammeter & multi range meter.

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04/08/23

Signature of the Principal/Course Co-ordinator/HOD:

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12/08/23

B.H.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
AUG.	3 rd	19/08/23	2.6. Basic principle of operation of D.C voltmeter & its applications.
		21/08/23	2.7. Basic principle of operation of A.C voltmeter & its application.
AUG.	4 th	22/08/23	2.8. Basic principle of ohm meter (series & shunt type).
		25/08/23	2.9. Basic principle of analog multimeter, its types & applications.
		26/08/23	2.10. operation of Q-meter & its essentials.

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04/08/23

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21/8/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
AUG.	4 th	28/08/23	3.1. Principle of operation of Ramp type digital voltmeter & applications.
		29/08/23	3.2. Operation of Display of $3\frac{1}{2}$, $4\frac{1}{2}$ -digital multimeter and resolution & sensitivity.
SEPT.	1 st	01/09/23	3.3. Basic Principle of operation of working of digital multimeter, its types & applications.
		02/09/23	3.4. Basic principle of operation of working of digital frequency meter.

nature of the Faculty: *Amns*
01/08/23

Signature of the Principal/Course Co-ordinator/HOD: *K. Prathap*
11/8/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
SEPT.	1 st	04/09/23	3.5. operation of working of digital measurement of time.
		05/09/23	3.6. measurement of frequency.
	2 nd	08/09/23	3.7. Principle of operation of working of digital tachometer.
		09/09/23	3.8. Principle of working of automation in digital instruments (Polarity indication, Ranging, zeroing & fully automatic).
SEPT.		11/09/23	3.9. Block diagram of LCR meter & its working principle.

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11/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<u>UNIT :- 4</u> <u>OSCILLOSCOPE :-</u>
SEPT.	3 rd	12/09/23	4.1. Basic principle of oscilloscope & its block diagram.
		15/09/23	4.2. Basic principle & block diagram of CRO, dual trace oscilloscope & its specification
		16/09/23	
		18/09/23	4.3. CRO measurements, Lissajous figures.
SEPT.	4 th	22/09/23	4.4. Applications of oscilloscope (voltage, period & frequency measurement).
		23/09/23	4.5. Operation of digital storage oscilloscope & high frequency oscilloscope
		25/09/23	

Signature of the Faculty: *Purnima*
01/08/23

Signature of the Principal/Course Co-ordinator/HOD: *P. P. 16/09/23*

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<u>UNIT - 5</u> <u>BRIDGES :-</u>
SEPT.	4 th	26/09/23	5.1. Types of bridges (DC & AC bridges)
		30/09/23	5.2. DC bridges (Measurement of resistance by wheatstone's bridge).
OCT.	1 st	03/10/23	5.3. AC bridges (Measurement of inductance by Maxwell's bridge & by Hay's bridge).
		06/10/23	
		07/10/23	5.4. Measurement of capacitance by Schering's bridge & Deauty bridge.
		09/10/23	

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B.I.E.T. COURSE PLAN

Month

Week	Class Day	Theory/Practical Topic
2 nd	10/10/23	5.5. Working of Q-meter, its circuit diagram & measurement of low impedance.
	13/10/23	
3 rd	16/10/23	5.6. Measurement of frequency
	17/10/23	
<p>UNIT-6 :- <u>TRANSDUCERS & SENSORS :-</u></p>		
4 th	30/10/23	6.1. Parameter, method of selecting & advantage of electrical transducer & resistive transducer.
	31/10/23	
1 st	03/11/23	6.2. Working principle of strain gauges, define strain gauge.
	04/11/23	
		6.3. Working principle of LVDT.

OCT.

NOV.

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21/09/23

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11/9/22

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic	1th
NOV.	1st	06/11/23	6.4. Working principle of capacitive transducers (pressure)	
		07/11/23	6.5. Working principle of load cell (pressure cell)	10V.
NOV.	2nd	10/11/23	6.6. Working principle of temperature transducer (RTD, optical pyrometer, thermocouple, thermistor)	
		13/11/23		
		14/11/23		6.7. Working principle of current transducer & KW transducer
		17/11/23		

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P. Suresh
01/10/23

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10/10/23

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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
Nov.	3 rd	18/11/23	6.8. Working principle of proximity & light sensors.
			<u>UNIT-7</u> SIGNAL GENERATOR, WAVE ANALYSER & DAS
Nov.	4 th	20/11/23	7.1. General aspect & classification of signal generator
		21/11/23	7.2. Working principle of AF sine & square wave generator.
		24/11/23	7.3. Working principle of the function generator.
		25/11/23	7.4. Function of basic wave analyser & spectrum analyser.

Signature of the Faculty:

Luvans
09/10/23

Signature of the Principal/Course Co-ordinator/HOD:

Prasanna
11/11/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
NOV.	4 th	28/11/22	7.5: Basic concept of data acquisition system (DAS)

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Pradyumn

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01/12/22

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Pradyumn
18/12/22