

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



STUDENT'S ATTENDANCE REGISTER

Time	9.05	9.55	10.45	1.55	
Day	9.55	10.45	11.35	2.45	
Mon		math-3			
Tue			math-3		
Wed				math-3	
Thu				math-3	
Fri					
Sat	math-3				

Year/ Session : 2023 (winter)	Semester from Date: 01/08/2023 To Date : 30/11/2023
Semester & Branch	3 rd , Electrical
Subject with Code	Engineering Mathematics-3
Name of the Faculty Member	Sibus Jena
No of Weeks:	No of Class Allotted/Week : 5

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
August	1st	01/08/23	(1) <u>Complex numbers</u>
			1.1 Real and imaginary numbers.
		2/08/23	1.2 Complex numbers, conjugate complex numbers, modulus and Amplitude of a complex number.
	2nd	3/08/23	1.3 Geometrical Representation of a complex numbers.
		5/08/23	1.4 properties of complex numbers.
		7/08/23	1.5 Determination of three cube roots of unity and their properties.
		8/08/23	1.6 De Moivre's theorem. 1.7 Solve problems of 1.1 - 1.6.

Signature of the Faculty: *[Signature]*

[Signature]
27.7.23

Signature of the Principal/Course Co-ordinator/HOD: *[Signature]*
1.8.23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
↑ August ↓			<u>Matrices</u>
		↑ 9/08/23	2.1 Define rank of a matrix.
		↓ 10/08/23	2.2 Perform elementary row transformations to determine the rank of a matrix.
		↑ 12/08/23	2.3 State Rowche's theorem for existence of a system of linear equations in n unknowns.
	3rd	14/08/23	2.4 Solve equations in three unknowns testing consistency.
			2.5 Solve problems on 2.1-2.4

Signature of the Faculty: *[Signature]*

Signature of the Principal/Course Co-ordinator/HOD: *[Signature]*
7/8/23

B.I.E.T., COURSE PLAN

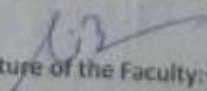
Month	Week	Class Day	Theory/Practical Topic
August	3rd	16/08/23	<u>Linear Differential Equations</u> 3.1 Define Homogeneous and Non-Homogeneous Linear Differential Equations with constant coefficients with examples.
		17/08/23	3.2 Find general solution of linear Differential Equation in terms of C.F and P.I
		19/08/23	3.3 Derive rules for finding C.F and P-I in terms of operator D, excluding $\frac{1}{f(D)} x^n$.
	4th	21/08/23	3.4 Define partial differential equation (P.D.E)
		22/08/23	3.5 Form partial differential equations by eliminating arbitrary constants and arbitrary function.
		23/08/23	3.6 Solve partial differential equations of the form $Pp + Qq = R$
		24/08/23	
		26/08/23	3.7 Solve problems of 3.1 - 3.6
	5th	28/08/23	
		29/08/23	

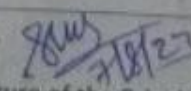
Signature of the Faculty:

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

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
August Sept. ↓	5th	31/08/23	<u>Laplace Transforms</u>
	1st	02/09/23	4.1. Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(\frac{1}{2}) = \sqrt{\pi}$.
		4/09/23	4.2 Define Laplace Transform of a function $f(t)$ and inverse Laplace transform.
		5/09/23	
		7/09/23	4.3 Derive L.T of standard function and explain existence conditions of L.T.
		9/09/23	4.4 Explain linear, shifting property of L.T
		11/09/23	
		12/09/23	4.5 formulate L.T of derivative, integral multiplication by t^n and division by t .
		13/09/23	4.6 Derive formulae of inverse L.T and explain method of partial fractions.
		14/09/23	
	16/09/23	4.7 Solve problems of 4.1 - 4.6	
	18/09/23		

Signature of the Faculty: 

Signature of the Principal/Course Co-ordinator/HOD:  7/8/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
Sept. ↑ ↓ ↑ ↓	4 th ↓ ↑ 5 th ↓ ↑ ↓ 7 th ↓	21/09/23	<u>Fourier Series</u> 5.1 Define periodic functions.
		23/09/23	5.2 State Dirichlet's Condition for the Fourier expansion of a function and its convergence.
		25/09/23	5.3 Express periodic function $f(x)$ satisfying Dirichlet's condition as a Fourier series.
		26/09/23	5.4 State Euler's Formulae.
		27/09/23	5.5 Define even and odd functions and find Fourier series in $0 \leq x \leq 2\pi$ and $-\pi \leq x \leq \pi$
		28/09/23	5.6 Obtain F.o.S of continuous function and functions having points of discontinuity in $0 \leq x \leq 2\pi$ and $-\pi \leq x \leq \pi$
		30/09/23	
		3/10/23	
		4/10/23	
		5/10/23	
7/10/23			

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD: 7/10/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
Oct.		9/10/23	5.7 Solve problems of 5.1-5.6
			<u>Numerical method</u>
		10/10/23	6.1 Appraise limitations of analytical methods of solution of algebraic Equation.
	part	11/10/23	6.2 Derive iterative formula for finding the solutions of algebraic equations by
		12/10/23	6.2.1 Bisection method
		14/10/23	6.2.2 Newton-Raphson method.
			6.3 Solve problems of 6.2

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD: 7/8/23

B.I.E.T., COURSE PLAN

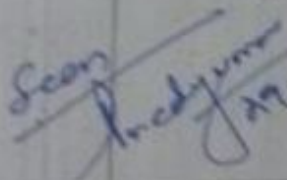
Month	Week	Class Day	Theory/Practical Topic
Oct. ↑ ↓ ↑ ↓	2nd ↑ ↓ ↑ ↓ ↑ ↓	16/10/23	Finite difference and interpolation ~~~~~
		17/10/23	7.1 Explain finite difference and form table of forward and back-ward difference
		18/10/23	7.2 Define shift operator (E) and establish relation between (E) and difference operator (Δ)
		19/10/23	7.3 Derive Newton's forward and backward interpolation formula for equal intervals.
		21/10/23	
		30/10/23	
		31/10/23	7.4 State Lagrange's interpolation formula for unequal intervals.
		01/11/23	
		02/11/23	7.5 Explain numerical integration and state:

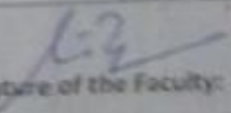
Signature of the Faculty:

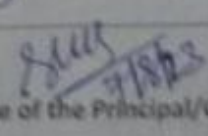
Signature of the Principal/Course Co-ordinator/HOD: 7.11.23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
↑ Nov ↓	34	04/10/23	7.5.1 Newton's cot's formula
	35	06/11/23	7.5.2 Trapezoidal rule
	36	07/12/23	7.5.3 Simpson's $\frac{1}{3}$ rd rule
			7.6 Solve problems of 7.1 - 7.5


 Sean Pradyumn
 29.7.23


 Signature of the Faculty:


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