

3rd Sem Elect.

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



STUDENT'S ATTENDANCE REGISTER

Time	9-5-10 ⁴⁵	10 ⁴⁵ -11 ²⁵	1-55-2 ⁴⁵		
Day					
MON	math-3				
TUE		math-3			?
WED		math-3			
THU			math-3		
SAT	math-3				

Year/ Session	2022 - 2023 2
Semester & Branch	3rd Semester Electrical.
Subject with Code	Engg. math - 3
Name of the Faculty Member	Sibun Jena

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<u>Topic-01</u> <u>Complex Number</u>			
1.1 Real and imaginary numbers.	15/9/22	hiz	
1.2 Complex Numbers, Conjugate Complex Numbers, Modulus and Amplitude of a Complex Number.	19/9/22	hiz	
1.3 Geometrical Representation of Complex Numbers.	20/9/22 20/9/22	hiz	
1.4 properties of Complex Numbers.	21/9/22 21/9/22	hiz	
1.5 Determination of three cube roots of unity and their properties.	22/9/22 22/9/22	hiz	
		Seen Annamma 12.9.22	



B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
1.6 De Moivre's theorem.	24/9/22 24/9/22	hiz	
1.7 Solve problems on 1.1 - 1.6.			
<p><u>Topic-02</u> <u>MATRICES</u></p>			
2.1 Define rank of a matrix	26/9/22	hiz	
2.2 perform elementary row transformations to determine the rank of a matrix.	27/9/22	hiz	hiz
2.3 State Rouché's theorem for consistency of a system of	28/9/22	hiz	

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<p>linear equations in 'n' unknowns,</p> <p>2.4 Solve equations in three unknowns testing consistency.</p> <p>2.5 Solve problems on 2.1 - 2.4.</p>	29/9/22	hi 2	S.P.
<p style="text-align: center;"><u>Topic - 03</u></p> <p>- <u>Linear Differential Equations :-</u></p> <p>3.1 Define homogeneous and Non-homogeneous linear Differential equation with constant</p>	12/10/22	hi 2	S.P.


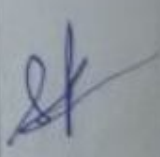
B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Co-efficients with examples	13/10/22	hi 3	
3.2 Find general solutions of linear Differential equations in terms of C.F and P.I.	15/10/22	hi 3	
3.3 Derives rules for finding C.F and P.I. in terms of operator 'D', excluding $\frac{1}{f(D)} x^n$	17/10/22	hi 3	
	18/10/22	hi 3	
3.4 Define partial differential equation (P.D.E).	19/10/22	hi 3	
3.5 From partial differential equations	20/10/22	hi 3	

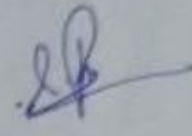

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
by eliminating arbitrary constants and arbitrary functions.	22/10/22 22/10/22	hiz	S.P.
3.6 solve partial differential equations of the form $Pp + Qq = R$.	24/10/22 24/10/22	hiz	
3.7 - Solve problems on 3.1 - 3.6.	25/10/22 25/10/22	hiz	
<u>Topic-04</u>			
<u>Laplace Transforms</u>			
4.1 Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(1/2) = \sqrt{\pi}$.	26/10/22 26/10/22	hiz	S.P.

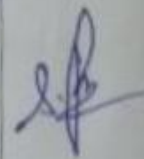
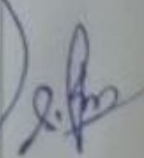
B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
4.2 Define Laplace transform of a function $f(t)$ and Inverse Laplace transform.	27/10/22 27/10/22	hi3	
	29/10/22 29/10/22	hi3	
4.3 Derive L.T. of standard functions and explain existence conditions of L.T.	31/10/22 31/10/22	hi3	
	7/11/22 7/11/22	hi3	
	2/11/22	hi3	
4.4 Explain linear, Shifting property of L.T.	3/11/22 3/11/22	hi3	
	5/11/22 5/11/22	hi3	
7/11/22	hi3		
9/11/22	hi3		
4.5 Formulate L.T. of derivatives, Integrals, multiplications by t^n and division by t .			

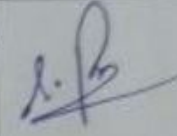
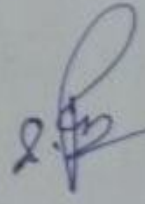
B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
4.6 Derive formulae of Inverse L.T and explain method of partial fractions	10/11/22	hi3	
	12/11/22	hi3	
		hi3	
4.7 Solve problems on 4.1 - 4.6.			
<u>Topic-05</u>			
◦ <u>Fourier Series</u> ◦ -			
5.1 Define periodic functions.	14/11/22	hi3	
5.2 State Dirichlet's Condition for the	15/11/22	hi3	



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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O.
Fourier expansion of a function and it's convergence.	16/11/22	hi3	} 
5.3 Express periodic function $f(x)$ satisfying Dirichlet's conditions as a fourier series.	17/11/22	hi3	
	19/11/22	hi3	
	21/11/22	hi3	
5.4 State Euler's formulae.	22/11/22	hi3	} 
5.5 Define even and odd functions and find fourier series in $0 \leq x \leq 2\pi$ and	23/11/22	hi3	
	24/11/22	hi3	
	26/11/22	hi3	

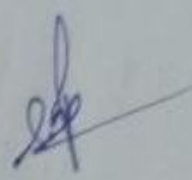
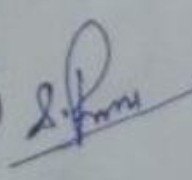
B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
$-\pi \leq x \leq \pi$ 5.7 solve problems on 5.1 - 5.6.	28/11/22 29/11/22	hi 3 hi 3	
<p><u>Topic - 06.</u></p> <p>-o Numerical methods o-</p>			
6.1 Appraise limitation of analytical methods of solution of Algebraic Equations.	30/11/22	hi 3	
6.2 Derive Iterative formula for finding the solutions of algebraic equations	1/12/22	hi 3	

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O.D.
6.2.1 - Bisection method.	3/12/22	hi3	
6.2.2 - Newton Raphson method.	5/12/22	hi3	
6.3 Solve problems on 6.2.			
<u>Topic - 07</u>			
◦ Finite difference and interpolation ◦-			
7.1. Explain finite difference and form table of forward and backward difference.	6/12/22	hi3	

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
7.2 Define shift operator (E) and establish relation between E and difference operator (A):	7/12/22	hi 3	
	8/12/22	hi 3	
7.3 Derive Newton's forward and backward interpolation formula for equal intervals.	10/12/22	hi 3	
	12/12/22	hi 3	
7.4 State Lagrange's interpolation formula for unequal intervals.	13/12/22	hi 3	
	14/12/22	hi 3	

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O.
7.5 Explain Numerical integration and state	15/12/22	hi 3	
7.5.1 - Newton's Cote's formula.	17/12/22	hi 3	
7.5.2 Trapezoidal rule.	19/12/22	hi 3	
7.5.3 Simpson's $\frac{1}{3}$ rule.	20/12/22	hi 3	
7.6 Solve problems on 7.1 - 7.5	21/12/22	hi 3	
		Seen Prodyumna 12.19.22	