3rd Sem Elect.

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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

STUDENT'S ATTENDANCE REGISTER

Time / Day	9.55-10.45	10.45-11.35	1.55-2.45		
MON	math-3				
TUE		math-3			
WED		math-3			
THU			math-3		
SAT	math-3				

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

B.I.E.T.
SYLLABUS COVERAGE

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

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SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
1.6 Do Moivre's theorem.	24/9/22 24/9/22		
1.7 Slove problems on 1.1 – 1.6.			
Topic-02.			
:- MATRICES :-			
2.1 Define rank of a matrix	26/9/22		
2.2 perform elementary row transformations to determine the rank of a matrix.	27/9/22		
	28/9/22		
2.3 State Rouche's therom for Consistency of a system of			

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
linear equations in 'n' unknowns.	29/9/22		
2.4 Solve equations in three unknowns testing Consistency.			
2.5 Solve problems on 2.1 – 2.4.			
Topic - 03 :- Linear Differential Equations :-			
3.1 Define Homogeneous and Non-homogeneous Linear Differential equation with Constant	12/10/22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Co-efficients with examples	13/10/22		
3.2 Find general Solutions of Linear Differential equations in terms of C.F and P.I.	15/10/22		
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		
	18/10/22		
	19/10/22		
3.4 Define partial differential equation (P.D.E).			
	20/10/22		
3.5 From partial differential equations			

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by eliminating arbitrary constants and arbitrary functions.	22/10/22 23/10/22		
3.6 Solve partial differential equations of the form $Pp + Qq = R$.	24/10/22 24/10/22		
3.7 - Solve problems on 3.1 - 3.6.	25/10/22 25/10/22		
Topic-04			
:- Laplace Transforms :-			
4.1 Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(1/2) = \sqrt{\pi}$.	26/10/22 26/10/22		

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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 29/10/22		
4.3 Derive L.T. of standard functions and explain existance Conditions of L.T.	31/10/22 7/11/22 2/11/22		
4.4 Explain Linear, Shifting property of L.T.	3/11/22		
4.5 Formulate L.T. of derivaties, Integrals, multeplications by t^n and division by t.	5/11/22 7/11/22 9/11/22		

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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	[illegible]	
	12/11/22	[illegible]	
		[illegible]	
4.7 Solve problems on 4.1 - 4.6.			
Topic-05			
Fourier Series			
5.1 Define periodic functions.	14/11/22	[illegible]	
	15/11/22	[illegible]	
5.2 State Dirichlet's Condition for the			

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

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$-\pi \leq x \leq \pi$.	28/11/22		
5.7 Solve problems on 5.1 – 5.6.	29/11/22		
Topic - 06.			
Numerical methods :-			
6.1 Appraise limitation of analytical methods of solution of Algebraic Equations.	30/11/22		
6.2 Derive Iterative formula for finding the solutions of algebric equations	1/12/22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D
6.2.1 - Bisection method.	2/12/22		
6.2.2 - Newton Raphson method.	5/12/22		
6.3 Solve problems on 6.2.			
Topic - 07			
Finite difference and interpolation :-			
7.1 Explain finite difference and form table of forward and backward difference.	6/12/22		

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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 (Δ):	7/12/22		
	9/12/22		
7.3 Derive Newton's forward and backward interpolation formula for equal intervals.	10/12/22		
	12/12/22		
7.4 State Lagrange's interpretation formula for unequal intervals.	13/12/22		
	14/12/22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D
7.5 Explain Numerical integration and state	15/12/22		
7.5.1 - Newton's Cote's formula.	17/12/22		
7.52 Trapezoidal rule.	19/12/22		
7.5.3 Simpson's 1/3rd rule.	20/12/22		
7.6 Solve problems on 7.1 - 7.5	21/12/22		

Seen
Procdyumna
12.9.22