

LESSON PLAN

GOVERNMENT POLYTECHNIC SAMBALPUR (RENGALI)

Name of the Faculty: Nipan Padhan

Academic Year: 2024-25

Course No.: Th-3

Course Name: Engg. Mathematics

Program: Diploma

Branch: Electrical

Year/Sem: 1st Year / 1st Semester

Section: C&D

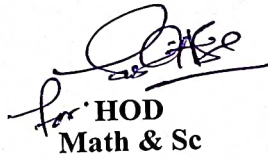
Sl. No.	Period	Time (min)	Topic to be Covered	Teaching Method
1.	1.	60	Concept of angles, measurement of angles in degrees, grades and radians and their conversions,	Blackboard & chalk
2.	2.	60	Concept of angles, measurement of angles in degrees, grades and radians and their conversions,	Blackboard & chalk
3.	3.	60	Concept of angles, measurement of angles in degrees, grades and radians and their conversions,	Blackboard & chalk
4.	4.	60	T-Ratios of Allied angles (without proof).	Blackboard & chalk
5.	5.	60	T-Ratios of Allied angles (without proof).	Blackboard & chalk
6.	6.	60	T-Ratios of Allied angles (without proof).	Blackboard & chalk
7.	7.	60	Sum, difference formulae and their applications (without proof).	Blackboard & chalk
8.	8.	60	Sum, difference formulae and their applications (without proof).	Blackboard & chalk
9.	9.	60	Sum, difference formulae and their applications (without proof).	Blackboard & chalk
10	10.	60	Product formulae (Transformation of product to sum, difference and vice versa)	Blackboard & chalk
11	11.	60	Product formulae (Transformation of product to sum, difference and vice versa)	Blackboard & chalk
12	12.	60	Product formulae (Transformation of product to sum, difference and vice versa)	Blackboard & chalk
13	13.	60	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	Blackboard & chalk
14	14.	60	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	Blackboard & chalk
15	15.	60	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	Blackboard & chalk
16	16.	60	Graphs of sin x, cos x, tan x and ex ..	Blackboard & chalk
17	17.	60	Graphs of sin x, cos x, tan x and ex ..	Blackboard & chalk
18	18.	60	Graphs of sin x, cos x, tan x and ex ..	Blackboard & chalk
19	19.	60	Definition of function	Blackboard & chalk
20	20.	60	Concept of limits.	Blackboard & chalk
21	21.	60	Concept of limits.	Blackboard & chalk
22	22.	60	Four standard limits	Blackboard & chalk
23	23.	60	Four standard limits	Blackboard & chalk

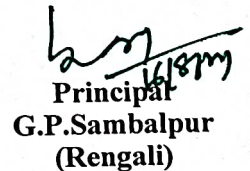
24	24.	60	Four standard limits	Blackboard & chalk
25	25.	60	Differentiation by definition of x^n $\sin x$, $\cos x$, $\tan x$	Blackboard & chalk
26	26.	60	Differentiation by definition of x^n $\sin x$, $\cos x$, $\tan x$	Blackboard & chalk
27	27.	60	Differentiation of sum, product and quotient of functions.	Blackboard & chalk
28	28.	60	Differentiation of sum, product and quotient of functions.	Blackboard & chalk
29	29.	60	Differentiation of sum, product and quotient of functions.	Blackboard & chalk
30	30.	60	Differentiation of function of a function.	Blackboard & chalk
31	31.	60	Differentiation of trigonometric and inverse trigonometric functions	Blackboard & chalk
32	32.	60	Differentiation of trigonometric and inverse trigonometric functions	Blackboard & chalk
33	33.	60	Differentiation of trigonometric and inverse trigonometric functions	Blackboard & chalk
34	34.	60	Logarithmic differentiation	Blackboard & chalk
35	35.	60	Logarithmic differentiation	Blackboard & chalk
36	36.	60	Exponential functions.	Blackboard & chalk
37	37.	60	Exponential functions.	Blackboard & chalk
38	38.	60	Definition, real and imaginary parts of a Complex number	Blackboard & chalk
39	39.	60	polar and Cartesian, representation of a complex number and its conversion from one form to other	Blackboard & chalk
40	40.	60	polar and Cartesian, representation of a complex number and its conversion from one form to other	Blackboard & chalk
41	41.	60	polar and Cartesian, representation of a complex number and its conversion from one form to other.	Blackboard & chalk
42	42.	60	conjugate of a complex number, modulus and amplitude of a complex number	Blackboard & chalk
43	43.	60	conjugate of a complex number, modulus and amplitude of a complex number.	Blackboard & chalk
44	44	60	conjugate of a complex number, modulus and amplitude of a complex number.	Blackboard & chalk
45	45	60	Addition, Subtraction, Multiplication and Division of a complex number	Blackboard & chalk
46	46	60	Addition, Subtraction, Multiplication and Division of a complex number	Blackboard & chalk
47	47	60	Addition, Subtraction, Multiplication and Division of a complex number	Blackboard & chalk

48	48	60	De-movier's theorem, its application.	Blackboard& chalk
49	49	60	Definition of polynomial fraction proper & improper fractions and definition of partial fractions.	Blackboard& chalk
50	50	60	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors, repeated linear factors and irreducible non-repeated quadratic factors.	Blackboard& chalk
51	51	60	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors, repeated linear factors and irreducible non-repeated quadratic factors.	Blackboard& chalk
52	52	60	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors, repeated linear factors and irreducible non-repeated quadratic factors.	Blackboard& chalk
53	53	60	To resolve improper fraction into partial fraction.	Blackboard& chalk
54	54	60	Value of nPr and nCr .	Blackboard& chalk
55	55	60	Binomial theorem (without proof) for positive integral index (expansion and general form);	Blackboard& chalk
56	56	60	Binomial theorem (without proof) for positive integral index (expansion and general form);	Blackboard& chalk
57	57	60	binomial theorem for any index (expansion without proof)	Blackboard& chalk
58	58	60	first and second binomial approximation with applications to engineering problems	Blackboard& chalk
59	59	60	first and second binomial approximation with applications to engineering problems	Blackboard& chalk
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Nipam Padhan

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(Guest Faculty in Math)


for HOD
Math & Sc


Principal
G.P.Sambalpur
(Rengali)