SPINTRONIC TECHNOLOGY AND ADVANCE RESEARCH

DEPARTMENT OF BSH

SUBJECT-ENGINEERING MATHEMATICS-I

LESSON PLAN SESSION-2023-24 SEM-1ST

NAME OF THE FACULTY: Ms Subhralin Sahoo

SL.NO	NO OF PERIOD (TOPIC WISE)	TOTAL NO OF PERIOD	CUMULATIVE NO OF PERIODS
1	Types of matrices	01	1
2	Algebra of matrices	01	2
3	Determinant	01	3
4	Properties of determinant	01	4
5	Inverse of a matrix of second order	01	5
6	Inverse of a matrix of third order	02	7
7	Problems on adjoint and inverse of a matrix	02	9
8	Cramer's Rule of second order matrix	01	10
9	Solution of simultaneous equations by matrix inverse method	01	11
10	Problems on Cramer's rule and solution of system of linear equation by matrix inverse method	02	13
11	Trigonometrical ratios	02	15
12	Compound angles(only formulae)	01	16
13	Multiple angles(only formulae)	01	17
14	Sub-multiple angles(only formulae)	01	18
15	Inverse circular functions	02	20
16	Properties of inverse circular functions	02	22
17	Introduction of geometry in two dimension	01	23
18	Distance formulae in two dimension	02	25
19	Division formulae in two dimension	02	27
20	Area of a triangle in two dimension	01	28
21	Definition of slope of a line	02	30
22	Angle between two lines	02	32
23	Condition of perpendicularity and parallelism	02	34
24	Different forms of straight lines	02	36

25	One point form of straight lines	02	38
26	Two point form of straight lines	02	40
27	Slope form of straight lines	01	41
28	Intercept form of straight lines	01	42
29	Perpendicular form of straight lines	02	44
30	Equation of a line passing through a point and parallel to a line	02	46
31	Equation of a line passing through a point and Perpendicular to a line	01	47
32	Equation of a line passing through the intersection of two lines	02	49
33	Problems on equation of line	02	51
34	Distance of a point from a line	01	52
35	Equation of a circle of centre radius form	01	53
36	General equation of a circle	01	54
37	End point of diameter form	01	55
38	Distance formulae in three dimension	01	56
39	Section formulae in three dimension	02	58
40	Direction ratio	01	59
41	Direction cosine	01	60
42	Angle between two lines (condition of parallelism and perpendicularity)	02	62
43	Equation of a plane in general form	01	63
44	Angle between two planes	01	64
45	Perpendicular distance of a point from a plane	02	66
46	Equation of a plane passing through a point and parallel to a plane	02	68
47	Equation of a plane passing through a point and perpendicular to a plane	02	70
48	Equation of a sphere in centre radius form	02	72
49	Equation of a sphere in general form	01	73
50	Equation of a sphere in two end points of a diameter form	02	75
TOTAL NO OF PERIOD:75			

Refernce Books: Elements of mathematics Vol.1&2(Odisha State Bureau of Text Book preparation & Production), Mathematics Part- I & Part- II- Textbook for Class XII, NCERT Publication