SPINTRONIC TECHNOLOGY AND ADVANCE RESEARCH

MECHANICAL ENGINEERING

SUBJECT- INDUSTRIAL ENGG. & MANAGEMENT

LESSON PLAN SESSION-2025-26 (Summer-25) SEM -6TH

NAME OF FACULTY-Er. S.MOHAPATRA (Asst. Prof.)

SL. NO.	NO OF PERIOD (TOPIC WISE)	TOTAL NO PERIOD	Cumulative no of periods
1	**PLANT ENGINEERING:** Selection of Site of Industry	1	1
2	Define plant layout	1	2
3	Describe the objective and principles of plant layout.	1	3
4	Explain Process Layout, Product Layout and Combination Layout	1	4
5	Techniques to improve layout	1	5
6	Principles of material handling equipment	1	6
7	Plant maintenance.	1	7
8	Importance of plant maintenance	1	8
9	Break down maintenance.	1	9
10	Preventive maintenance	1	10
11	Scheduled maintenance	1	11
12	**OPERATIONS RESEARCH:** Introduction to Operations Research and its applications	1	12
13	Define Linear Programming Problem	1	13
14	Solution of L.P.P. by graphical method	1	14
15	Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)	1	15
16	Explain distinct features of PERT with respect to CPM	1	16
17	**INVENTORY CONTROL:** Classification of inventory	1	17
18	Objective of inventory control	1	18
19	Describe the functions of inventories	1	19
	Benefits of inventory control	1	
	Costs associated with inventory	1	
20	Terminology in inventory control**.**	1	20
21	Explain and Derive economic order quantity for Basic model.	1	21
22	Define and Explain ABC analysis	1	22
23	**INSPECTION AND QUALITY CONTROL:** Define Inspection and Quality control	1	23
24	Describe planning of inspection.	1	24
25	Describe types of inspection	1	25
26	Advantages and disadvantages of quality control	1	26
27	Study of factors influencing the quality of manufacture	1	27
28	Explain the Concept of statistical quality control, Control charts	1	28
29	(X, R, P and C - charts).	1	29
30	Methods of attributes.	1	30
31	Concept of ISO 9001-2008.	1	31

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	Quality management system		
32	Registration /certification procedure.	1	32
33	Benefits of ISO to the organization.	1	33
34	JIT, Six sigma	1	34
35	7S, Lean manufacturing	1	35
36	Solve related problems.	1	36
37	**PRODUCTION PLANNING AND CONTROL**	1	37
38	Introduction	1	38
39	Major functions of production planning and control	1	39
40	Methods of forecasting	1	40
41	Routing	1	41
42	Scheduling	1	42
43	Dispatching	1	43
44	Controlling	1	44
45	Types of production	1	45
46	Mass production	1	46
47	Batch production	1	47
48	Job order production	1	48
49	Principles of product and process planning.	1	49
50	Doubt clearing class	1	50
51	Assignment question	1	51
52	Question paper discussion	1	52
53	Question paper discussion	1	53

Reference Book : INDUSTRIAL ENGINEERING & MANAGEMENT BY O.P.KHANNA
INDUSTRIAL ENGG & PRODUCTION MANAGEMENT BY MARTAND TELSAND
STATISTICAL QUALITY CONTROL BY M.MAHAJAN