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**ANNA UNIVERSITY CHENNAI 600 025 Roll No \_\_\_\_\_**  
**B.E. Degree Examination ( Full Time )**  
**PRINTING TECHNOLOGY**  
**PT472 Scheduling and Planning for Print Production Semester:**

**Max. Marks: 100**

**Total Time: 3 Hours**

**PART A**

(10 X 2 = 20 marks)

Answer ALL Questions

All questions carry equal marks

1. What do you mean by Scheduling ?
2. Explain "Critical Activity" with respect to networking problems
3. What are the types of inventories in an Publishing company?
4. List out the various types of inventory problems in Printing.
5. What do you mean by Lead Time in a Printing Manufacturing Company?
6. Where can Bill of Materials be used in a Packaging Organization?
7. Briefly explain the techniques for Scheduling.
8. Define ERP with an example.
9. Define EOQ with an example from the Printing Industry.
10. Draw the organization structure of a typical Gravure printing unit

**PART B**

(5 X 16 = 80 marks)

Answer ALL Questions

All questions carry equal marks

11. A project has the following activities

Activity	Immediate Predecessor	Time(days)
A	-----	6
B	-----	9
C	B	1
D	C	9
E	C	1
F	D	5
G	F	1
H	E	1
I	E	2
J	I	2

- (i) Draw network diagram (10)
- (ii) Compute ES,EF,LS,LF (3)
- (iii) Determine the critical path (2)
- (iv) Calculate the project completion time. (1)

12. (a). Solve the following transportation problem for total cost & total profit using VAM.

	1	2	3	4
A	93	32	67	87
B	54	56	66	76
C	59	95	11	92
D	85	39	88	41

Demand at markets 1,2,3 and 4 are 900,150,250 and 200 units respectively. The supply from factories A,B,C and D are 750,350,450 and 450 respectively

(OR)

(b) Explain in detail the factors involved in plot selection for setting up a large scale Printing Organization

13 (a) Explain in detail the various forms used in production by a Printing company with appropriate diagrams.

(OR)

(b) Job\Dept.	A (Hrs.)	B	C	D
1	8	3	4	7
2	9	2	5	5
3	6	4	5	8
4	11	5	1	9
5	7	1	2	3
6	8	2	3	8
7	11	5	1	9
8	6	3	4	7
9	10	3	2	8
10	9	5	4	9

(i) Find the ideal sequence (4)

(ii) Total time for the ideal sequence if order of processing is ABCD. (6)

(iii) Also find the idle time for the different departments. (2)

(iv) Final item Z is assembled from 3 major assemblies A, B and C. A consists of 3 units of D, 125 units of E and one of F. To make B component G and 31 units of H are needed. Subassembly C Requires 28 units of J, 121 units of H and 138 units of F. Component D requires 47 units of J and one unit of K. Construct a product structure tree for Z and Prepare a comprehensive BOM for producing 150000 units of Z. (4)

14 (a)(i) Explain with flowcharts MRP & MPS for a large newspaper organization (8)

(ii).Solve using Gantt Chart Technique: (8)

Job\Dept.	D1 (Hrs.)	D2
J1	8	5
J2	8	9
J3	9	3

(OR)

(b) .Solve using HAM for Minimization and Maximization

	A	B	C	D	E
1	41	44	60	28	24
2	25	62	29	70	80
3	28	29	22	42	42
4	20	58	51	25	25
5	25	44	41	41	31
6	25	24	82	78	28