PG Odd Semester (CBCS) Exam. December, 2022

Business Administration

(3rd Semester)

Course No: OM-3401

(Production Planning and Control)

Full Marks: 70
Pass Marks : 28

Time: 3 hours

The figures in the right margin indicate full marks for the question.

1. Explain the role of forecasting in modern production planning and control mechanism. Use simple moving average technique for evaluation of the forecast of Demand for the 12th month using alpha values (a) as 0.1, 0.5, 0.9.

Month	Observed Value
1	205
2	145
3	190
4	193.5
5	300
6	185
7	160
8	140
9	230
10	275
11	225

2. What do you mean by job shop, flow shop, dependent shop, open shop? Explain in brief DES Heuristics. NEH Heuristics Palmer Algorithm. The following table shows that data for 6 jobs on 3 machines allying Johnson's rule for sequencing.

	Processing Times		
Job No.	M1	M2	M3
1	15	2	1
2	8	6	14
3	18	2	3
4	25	5	5
5	17	10	10
6	22	10	20

14

3. How Just in Time (JIT) technique enhance the productions planning? Explain. 14

Or

4. What is Capacity Planning? How many standard hours are required to run an order of 300 pieces if the setup time is 1.5 hrs and run time is 0.4 hrs per piece? How many actual hours are needed at the work centre. If the efficiency is 130% and utilisatgion is 70%? Also calculate the rated capacity (assume 40 machines hours per week) 14

5. What do you mean by Rough Cut Capacity planning? How does rought cut capacity planning help in production control? 7+7=14

Or

6. What is Distribution Requirement Planning? How Distribution Requirement Planning help in Production Planning Process? 7+7=14

7. A layour problem with unit cost matrix is considered, use CRAFT algorithm to obtain layout. The initial layout and flow matrix are provided in the table below :

Initial layout :

7	7	
A	B	7
C	D	7

Flow Matrix

Department	A	B	C	D
A		30	25	45
B	20		15	20
C	10	20		10
D	100	10	5	

14

Or

8. Write notes on : 7x2=14

(i) CORELAP

(ii) ALDEP

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