

M.E. First Semester (Mechanical Engineering (CAD / CAM)) (F.T.) (CBS)
13484 : Computer Assisted Production Management : 1 MCC 3

P. Pages : 2

Time : Three Hours



AW - 3459

Max. Marks : 80

- Notes :
1. Answer **three** question from section "A" and **three** question from section "B"
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.

SECTION – A

1. a) Explain various methods of increasing & decreasing capacity. 7
b) Explain the need of LAPP. 6
2. a) What factors affect short range capacity planning? 7
b) Define capacity planning. Discuss the various factors influencing effective capacity. 6
3. a) Explain the construction of various types of CMM used in measurement. 7
b) Discuss the various software of post inspection used in CMM. 6
4. Discuss the following functions of machine vision parameters 13
 - i) Image acquisition & digitization
 - ii) Image processing & analysis
 - iii) Interpretation.
5. a) Explain briefly various optical inspection methods. 7
b) Classify the sensors used in automated inspection. 7

SECTION – 'B'

6. a) What is 'KANBAN'? Explain the concept of 'Single card KANBAN' and 'Two card KANBAN'. 7
b) Which type of workplace layout is more suitable in pull system. 7
7. a) What are the corner stones of Japanese manufacturing system according to prof. Robert Hall? 5
b) Analyze critically the difference between traditional purchasing & JIT purchasing. 8
8. a) State & explain MRP system components. 5
b) What are the advantages & limitations of MRP. 8

9. a) Compare the gross & net requirements. 4
- b) 'JIT is a philosophy whose aim is to eliminate'. Analyze the statement with respect to Shingo's seven waste. 9
10. A confectioner has collected following data of demand per week (in hundred of kgs) with probability as follows: 13

Demand/week (In hundred kgs.)	Probability
0	0.10
5	0.15
10	0.20
15	0.35
20	0.15
25	0.05

Using the sequence of random numbers given below, generate the demand for next quarter i. e. for 12 weeks. Also find average demand per week.
35, 52, 90, 13, 23, 73, 34, 57, 35, 83, 94, 56.
