

GUJARAT TECHNOLOGICAL UNIVERSITY**ME – SEMESTER –II-(New)-EXAMINATION – SUMMER-2019****Subject Code: 3720814****Date: 30/05/2019****Subject Name: Computer Aided Production Management****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss how Computer Aided Production Management is a system in itself. **07**
 (b) Explain the factors that affect the selection of a Manufacturing Process. **07**

- Q.2** (a) What are the objectives and principles of a good plant layout? **07**
 (b) Give the advantages and disadvantages of all the modes of Production. **07**

OR

- (b) Discuss the algorithm for Computerized Relative Allocation of Facility Technique. **07**

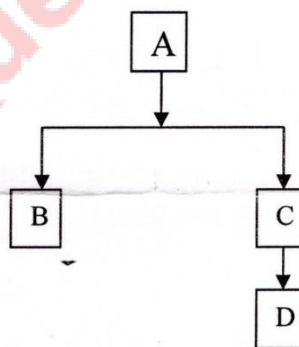
- Q.3** (a) Explain MRP-1 and MRP-II **07**
 (b) The Master Production Schedule for a product A is given below: **07**

Week	1	2	3	4	5	6	7	8
TOL	200	150	100	100	150	100	200	250

The BOM of the product is given below:

Parts Required	Order Quantity	No.of units	Lead Time (Weeks)	Stock in hand
A	300	1	2	100
B	250	2	1	50
C	200	1	1	150
D	350	1	2	100

The product assembly is shown below:



Compute the MRP for product A as well as subassemblies B,C.

OR

- Q.3** (a) Explain the process and steps involved in shop floor scheduling. **07**
 (b) Write an algorithm for Johnson's method of sequencing. **07**

- Q.4** (a) Discuss the different types of Computer aided process planning techniques. **07**
(b) Explain the hierarchical system of shop floor control. **07**
OR
- Q.4** (a) What are the different types of shop floor data collection systems **07**
(b) How does composite part in a product help Group Technology? **07**
- Q.5** (a) Explain the Rank ordering Clustering Technique with an example. **07**
(b) What are the major simulation activities on the shop floor? **07**
OR
- Q.5** (a) Discuss FMS and Lean manufacturing **07**
(b) What are the commercial packages available in the market? Discuss **07**

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