

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2017

Subject Code: 2171501

Date: 02/11/2017

Subject Name: Operations Planning & Control

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

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

MARKS

- Q.1 (a) What are different types of production? **03**
 (b) Discuss forecasting for a new product being launched, with an example. **04**
 (c) What is 'Process planning'? Explain process planning procedure. **07**

- Q.2 (a) What is scheduling? **03**
 (b) Explain Index method of scheduling. **04**
 (c) Discuss basic characteristics and role of OPC in each type of production. **07**

OR

- (c) Discuss pure strategies of aggregate planning with example. **07**
 Q.3 (a) What is dispatching? **03**
 (b) Explain the procedure of decentralizing dispatching system. **04**
 (c) Define OPC function in an organization. Discuss different phases of PPC. **07**

OR

- Q.3 (a) What is 'Break even analysis'? **03**
 (b) Discuss usefulness and limitations of 'Break even analysis' **04**
 (c) Discuss MRP and its four fundamental inputs. **07**
 Q.4 (a) Classify sales forecasting techniques. **03**
 (b) Discuss Master Production Scheduling. **04**
 (c) Use Johnson's method to find out the best sequence of operations and total idle time for following data : **07**

Job		1	2	3	4	5	6
Processing	Lathe	3	6	4	10	11	7
Time (hrs.)	Shaping	4	8	3	9	6	5

OR

- Q.4 (a) Explain scope of scheduling with example. **03**
 (b) Explain method of regression analysis. **04**
 (c) Discuss the process of line balancing. **07**
 Q.5 (a) Discuss a composite production system. **03**
 (b) Short note on: Line of balance technique. **04**
 (c) The sequence of manufacturing a product is as follows; Find out minimum no. of work stations and line efficiency: **07**

Operation	A	B	C	D	E	F	G	H
Time (In Min.)	3	7	8	4	2	5	23	8

OR

- Q.5 (a) What is aggregate planning? **03**
 (b) Discuss Economic Manufacturing Quantity. **04**
 (c) Discuss Route sheet preparation with an example. **07**
