

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018

Subject Code: 2171501
Date: 15/11/2018
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 is Process planning? | 03 |
| (b) | Explain Index method of scheduling. | 04 |
| (c) | What are the conditions under which you apply Johnson's rule for finding Optimal Sequence of operations? | 07 |

- Q.2**
- | | | |
|-----|---|-----------|
| (a) | What is scheduling? | 03 |
| (b) | Discuss Economic Manufacturing Quantity. | 04 |
| (c) | Discuss Production planning v/s Project planning. | 07 |

OR

- Q.3**
- | | | |
|-----|---|-----------|
| (c) | Discuss MRP and its four fundamental inputs. | 07 |
| (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.3**
- | | | |
|-----|--|-----------|
| (a) | Explain scope of scheduling with example. | 03 |
| (b) | Explain method of regression analysis. | 04 |
| (c) | Discuss aggregate planning. Justify use of mixed strategy. | 07 |
- Q.4**
- | | | |
|-----|--|-----------|
| (a) | Classify sales forecasting techniques. | 03 |
| (b) | Discuss Master Production Scheduling. | 04 |
| (c) | Discuss how PPC function is carried out in Job Production, Batch Production and Continuous production. | 07 |

OR

- Q.4**
- | | | |
|-----|---|-----------|
| (a) | What is 'Break even analysis'? | 03 |
| (b) | Discuss usefulness and limitations of 'Break even analysis' | 04 |
| (c) | Use Johnson's rule to find out the best sequence and find total idle time form the following data : | 07 |

Job	1	2	3	4	5	6
Milling M/c	1	5	4	2	2	4
Drilling M/c	3	1	5	2	7	3

- Q.5**
- | | | |
|-----|---|-----------|
| (a) | What is dispatching? | 03 |
| (b) | Explain the procedure of decentralizing dispatching system. | 04 |
| (c) | Discuss Route sheet preparation with an example. | 07 |

OR

- Q.5 (a) What are different types of production? **03**
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- (b) Discuss forecasting for a new product being launched, with an example. **04**
- (c) Define OPC function in an organization. Discuss different phases of PPC. **07**

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