

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA (AM) – SEMESTER – 8    EXAMINATIONS – WINTER 2018**

**Subject Code: 4180503**

**Date: 27/11/2018**

**Subject Name: Operations Management**

**Time: 02:30 PM to 05:30 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)** Identify different types of inspection and discuss their role in the Quality assurance and Control Process. What is the relationship between inspection and acceptance sampling? **07**
- (b)** What do you understand by Quality? Discuss various quality dimensions for a Company that manufacture mobile handset. **07**

- Q.2 (a)** What is production, planning and control? Explain its objectives and functions in detail. **07**
- (b)** Draw the network find Critical Path and calculate EST,EFT,LST,LFT and Slack timing available **07**

|             |     |     |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Activity    | 1-2 | 1-6 | 2-3 | 2-4 | 3-5 | 4-5 | 6-7 | 5-8 | 7-8 |
| Time (Days) | 6   | 5   | 13  | 4   | 11  | 6   | 11  | 3   | 15  |

OR

- (b)** The following is a schedule showing operation time for four jobs (A,B,C and D) on two machines (M-1 and M-2) **07**

| Jobs | Operation time on M-1 | Operation time on M-2 |
|------|-----------------------|-----------------------|
| A    | 3                     | 2                     |
| B    | 6                     | 8                     |
| C    | 5                     | 6                     |
| D    | 7                     | 4                     |

Assign four jobs on two machines by using Johnson's rule so as to minimize the total flow time.

- Q.3 (a)** Explain Principles of material handling and list down material handling equipments **07**
- (b)** Nirman company is into the manufacturing of papers bags. The annual demand for paper is 8000 kgs. The ordering cost is 50Rs. The per k.g. carrying cost of paper is 0.20 Rs. The store remains open for 365 days a year. The price of paper is 30Rs. Per k.g. **07**

1. Find EOQ
2. Calculate Total cost
3. Find total number of orders to be placed during the year
4. Whether the following discount offer should be accepted?

| Quantity | Price |
|----------|-------|
| 2500+    | 28    |

5. If it takes 5 days to receive the order, Find Re-order point

OR

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