

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA (AM) – SEMESTER – 8 - EXAMINATION – SUMMER 2016**

**Subject Code: 4180503**

**Date: 30/04/2016**

**Subject Name: OPERATIONS MANAGEMENT**

**Time: 10:30 AM to 1:30 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) “Operations management is transformation process ”support this statement with examples if you are agree with it . (7)

Q-1 (b) Discuss the pros and cons for a company considering a foreign location for its operations (7)

Q-2 (a) Suppose you are working as a turnkey project consultant one of your clients wants guidance in facility location for his new fast food restaurant .Guide your client . (7)

Q-2 (b) Discuss concept of PERT and CPM and also distinguish between PERT and CPM . (7)

OR

Q-2(b) “ Project control should always focus on the critical path ” critically examine the statement. (7)

Q-3(a) Prepare a Net –work diagram from the following data and calculate EST,EFT,LST,LFT,TF. (7)

| Activity | Name of activity | Predecessor | Time |
|----------|------------------|-------------|------|
| 1-2      | A                | -           | 3    |
| 1-3      | B                | -           | 5    |
| 1-4      | C                | -           | 4    |
| 2-5      | D                | A           | 2    |
| 3-5      | E                | B           | 3    |
| 4-6      | F                | C           | 9    |
| 5-7      | G                | D,E         | 8    |
| 3-6      | H                | B           | 7    |
| 6-7      | I                | H,F         | 9    |

Q-3 (b) Write detail functions of production and operations management . (7)

OR

Q-3 (a) The activity involving PERT project are detail as follows : (7)

| JOB i-j | Optimistic time | Pessimistic time | Most likely time |
|---------|-----------------|------------------|------------------|
| 1-2     | 3               | 6                | 15               |
| 2-3     | 6               | 12               | 30               |

|     |   |    |    |
|-----|---|----|----|
| 3-5 | 5 | 11 | 17 |
| 7-8 | 4 | 19 | 28 |
| 5-8 | 1 | 4  | 7  |
| 6-7 | 3 | 9  | 27 |
| 4-5 | 3 | 6  | 15 |
| 1-6 | 2 | 5  | 14 |
| 2-4 | 2 | 5  | 8  |

1. Find critical path .
2. probability of completion of projects before 31 days .
3. What is the change of project duration exceeding 40 days .

Q-3(b) Explain problems of production and operation management . (7)

Q-4 (a) Find out minimum total elapse time and also Ideal Time by using Johan's Sequencing model for the following date : (7)

| Job | Machine A | Machine B | Machine C |
|-----|-----------|-----------|-----------|
| 1   | 8         | 3         | 8         |
| 2   | 3         | 4         | 7         |
| 3   | 7         | 5         | 6         |
| 4   | 2         | 2         | 9         |
| 5   | 5         | 1         | 10        |
| 6   | 1         | 6         | 9         |

Q.4(b) Explain inventory management and theirs methods (7)

OR

Q-4(a) Draw  $\bar{X}$  and R chats also give suitable conclusion about SQC (Statistical Quality Control ) (7)

| Sample No. | X     | R |
|------------|-------|---|
| 1          | 6.50  | 3 |
| 2          | 7     | 2 |
| 3          | 7.50  | 2 |
| 4          | 9.50  | 3 |
| 5          | 9     | 2 |
| 6          | 10.50 | 4 |
| 7          | 11    | 3 |
| 8          | 3.5   | 2 |
| 9          | 3     | 2 |
| 10         | 3     | 3 |

Q-4(b) what are the various way to improved quality control . (7)

Q-5 (a) what do you mean by acceptance sampling . Explain their advantages and limitations. (7)

Q.5(b) write a basic function or components of PPC. (7)

OR

Q-5 (a) Explain Difference between inspection and quality control. (7)

Q-5(b) Discuss material handling principles . (7)

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