$\qquad$
$\qquad$
GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER - III (New)- EXAMINATION - WINTER-2019Subject Code: 3730008Date: 14-11-2019
Subject Name: Cost Management of Engineering ProjectsTime: 02:30 PM TO 05:00 PMTotal Marks: 70
Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
Q. 1 (a) Explain the following terms
a. Relevant cost
b. Differential cost
c. Incremental cost
d. Opportunity cost
(b) Explain Strategic Cost Management.
Q. 2 (a) Explain the following terms:
a. Marginal costing
b. Absorption costing
(b) Explain cost concepts in decision making.
(b) "Marginal Costing is a valuable technique to the management" critically evaluate $\mathbf{0 7}$ the marginal costing.
Q. 3 (a) Explain Break-even analysis in detail.

07
(b) What is project commissioning? Explain various stages of project execution. $\mathbf{0 7}$

OR
Q. 3 (a) Explain Cost-Volume-Profit analysis.
(b) Explain Just-in-time approach in detail.
Q. 4 (a) What is Budgetary control? Explain various types of budgets. 07
(b) What is Total Quality Management? Explain theory of constraints. $\mathbf{0 7}$

OR
Q. 4 (a) Explain the methods to solve Assignment model.
(b) Explain quantitative techniques for cost management. $\mathbf{0 7}$
Q. 5 (a) Consider the transportation problem shown in table below. Find the initial basic feasible solution using Northwest corner method.

|  |  | 1 |  | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 |  |  |  |  |  |  | Supply

(b) Find the optimal solution of the following Transportation Problem using MODI method. Use VAM to find IBFS.

|  | M1 | M2 | M3 | M4 | Supply |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F1 | 3 | 2 | 4 | 1 | 20 |
| F2 | 2 | 4 | 5 | 3 | 15 |
| F3 | 3 | 5 | 2 | 6 | 25 |
| F4 | 4 | 3 | 1 | 4 | 40 |
| Demand | 30 | 20 | 25 | 25 |  |

Q. 5 (a) Distinguish between CPM and PERT.
(b) Determine the Critical path for given activities and find out floats:

| Activity | Duration | Activity | Duration | Activity | Duration |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1-2$ | 10 | $2-6$ | 3 | $5-7$ | 7 |
| $1-3$ | 6 | $3-8$ | 12 | $6-7$ | 15 |
| $1-4$ | 7 | $4-6$ | 9 | $7-9$ | 4 |
| $2-5$ | 3 | $4-8$ | 8 | $8-9$ | 6 |

