M.B.A. II Semester Supplementary Examinations January 2019

## Financial Management

Max. Marks: 60
Time: 3 Hours
Answer all five units by choosing one question from each unit ( $5 \times 12=60$ Marks )

## UNIT-I

1. Write a detailed note on the meaning and functions of financial management.

OR
2. "Wealth maximization is more important than profit maximization." Justify.

## UNIT-II

3. Write a detailed note on discounted cash flow techniques of capital budgeting.
4. ABC limited proposes to acquire a machine for Rs $6,00,000$ and the particulars are as follows.
a) Life of the machine $=4$ years
b) Salvage value of the machine at the end of 4 years $=$ Rs 1,00,000 /-
c) Income per annum before depreciation and tax $=$ Rs 4,00,000/-
d) Tax rate $=50 \%$
e) Cost of capital $=20 \%$
f) Present value factor( PVF) $=20 \%$

| Year | Present Value <br> factor(PVF) |
| :---: | :---: |
| 1 | 0.883 |
| 2 | 0.694 |
| 3 | 0.579 |
| 4 | 0.482 |

## UNIT-III

5. Write a detailed note on inventory management.

## OR

6. Write a detailed note on receivables management.

## UNIT-IV

7. Write a detailed note on NOI theory of capital structure.

OR
8. Write a detailed note on operating and financial leverages.

## UNIT-V

9. Write a detailed note on the factors influencing the dividend policy.

## OR

10. Write a detailed note on Walter Model of dividend policy.

Hall Ticket Number :

## Code: 5P1A27

M.B.A. Il Semester Supplementary Examinations January 2019

## Operations Research

Time: 3 Hours
Max. Marks: 60
Answer all five units by choosing one question from each unit ( $5 \times 12=60$ Marks )

## UNIT-I

1. a) Explain the history of operations research.
b) Solve the following LP graphically:

Maximize $\mathrm{z}=8000 \mathrm{x}_{1}+7000 \mathrm{x}_{2}$
Subject to
$3 x_{1}+x_{2} \leq 66$
$x_{1}+x_{2} \leq 45$
$x_{1} \leq 20$
$x_{2} \leq 40$
$\mathrm{x}_{1}, \mathrm{x}_{2} \geq 0$

## OR

2. a) Define O.R. and discuss its scope
b) Use penalty (Big M) method to maximize: $z=3 x 1-x 2$

Subject to
$2 x_{1}+x_{2} \geq 2$
$x_{1}+3 x_{2} \leq 3$
$\mathrm{x}_{2} \leq 4$
$\mathrm{x}_{1}, \mathrm{x}_{2} \geq 0$
UNIT-II
3. a) What is degeneracy in transportation problems? How is it resolved?
b)

F1
F2
F3

| W1 | W2 | W3 | W4 |
| :---: | :---: | :---: | :---: |
| 19 | 30 | 50 | 10 |
| 70 | 30 | 40 | 60 |
| 40 | 8 | 70 | 20 |
| 5 | 8 | 7 | 14 |

Supply 7 9 18
$\begin{array}{llllll}\text { Demand } & 5 & 8 & 7 & 14\end{array}$

OR
4. a) What is the difference between Assignment Problem and Transportation Problem?
b) Find optimal solution to the following TP using VAM-MODI method each cell value being the unit cost

|  | $\mathrm{D}_{1}$ | $\mathrm{D}_{2}$ | $\mathrm{D}_{3}$ | $\mathrm{D}_{4}$ | $\mathrm{D}_{5}$ | $\begin{gathered} \text { supply } \\ 285 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{C}_{1}$ | 35 | 41 | 28 | 16 | 20 |  |
| $\mathrm{C}_{2}$ | 14 | 21 | 28 | 30 | 15 | 145 |
| $\mathrm{C}_{3}$ | 45 | 18 | 17 | 29 | 26 | 165 |
| Demand | 125 | 125 | 100 | 100 | 175 |  |

## UNIT-III

5. a) Write the steps for solving a A.P. by Hungarian method

4M
b) A medical representative has to visit five stations A, B, C, D and E. He does not want to visit any station before completing his tour of all the stations and wishes to return to the starting Station. Costs of going from one station to other station are given below. Determine the optimal route.

|  | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\infty$ | 2 | 4 | 7 | 1 |
| B | 5 | $\infty$ | 2 | 8 | 2 |
| C | 7 | 6 | $\infty$ | 4 | 6 |
| D | 10 | 3 | 5 | $\infty$ | 4 |
| E | 1 | 2 | 2 | 4 | $\infty$ |
| OR |  |  |  |  |  |

6. a) What is an Assignment Problem?
b) Solve the following Assignment Problem

|  | P | Q | R | S |
| :---: | :---: | :---: | :---: | :---: |
| A | 5 | 3 | 4 | 7 |
| B | 2 | 3 | 7 | 6 |
| C | 4 | 1 | 5 | 2 |
| D | 6 | 8 | 1 | 2 |
|  | UNIT-IV |  |  |  |

7. a) Explain the difference between pure strategy and mixed strategy.
b) A and B play a game in which each has three coins a 5 p, a $10 p$ and a 20 p. Each player selects a coin without the knowledge of the other's choice. If the sum of the coins is an odd amount, A and B's coin; if the sum is even, B wins A's coin. Find the best strategy for each player and the value of the game.

## OR

8. In a bank 4 cash counters are opened for drawing money. On average 50 persons arrive in 5 hour a day. Each cashier has to spend 15 minutes on the average on an arrival. If the arrivals are poissionally distributed and service times are according to exponential distribution. Determine
a) Average number of customers in the system
b) Average number of customers waiting in the system.
c) Average time of a customer's spend in the system.
d) The probability that a customer has to wait before he gets service.
UNIT-V
9. a) Write applications of PERT/CPM techniques.
b) Describe the role of network models of operations research the managerial decision making.

## OR

10. a) State Rules for Network Diagram
b) A project schedule has the following characteristics. Construct the PERT network and find the critical path and time duration of the project.
Activity 1-2 $1-4 \quad 1-7 \quad 2-3 \quad 3-6 \quad 4-5 \quad 4-8 \quad 5-6 \quad 6-9 \quad 7-8$ 8-9
$\begin{array}{llllllllllll}\text { Time } & 2 & 2 & 1 & 4 & 1 & 5 & 8 & 4 & 3 & 3 & 5\end{array}$

## Code: 5P1A24

## R-15

M.B.A. II Semester Supplementary Examinations January 2019 Production and Operations Management
Max. Marks: 60
Answer all five units by choosing one question from each unit ( $5 \times 12=60$ Marks )

## UNIT-I

1. Define production and operations management and write about nature and scope of production and operations management.

OR
2. Explain the types of manufacturing systems.

## UNIT-II

3. What is production planning and control? What are its different stages? Explain.

OR
4. What is break down maintenance? How is it different from preventive maintenance? Explain.

## UNIT-III

5. What are the material handling principles?

OR
6. Discuss the types of layouts.

## UNIT-IV

7. Define productivity. Also explain the ways and means of improving the productivity.

## OR

8. What are the different recording techniques used in the method study? Explain each of them in brief.

## UNIT-V

9. Explain about the Just in-Time production.

## OR

10. What is control chart? Bring out the steps involved in the construction of $X$-chart and R - chart.
