

42

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
 Fourth Semester BBA Degree Examination, March /April 2019  
 BBBA4C04- Management Science  
 (2017 Admission onwards)

Time: 3 hours

Max. Marks: 80

**PART A**

Answer all questions each question carries 1 mark

Choose Correct Answer From The Bracket

Network technique are called by the name

- a)PERT                      b) LPP                      c) PBP                      d) NPV

-----is an activity oriented diagramme

- a)PERT                      b) CPM                      c) Both A and B                      d) None of the above

Which of the following as an the assumptions of an LP model

- a)Proportionality    b) additively    c) Divisibility                      d) all of the above

-----model involves all forms of diagrams

- a)Iconic                      b) mathematical                      c) analogue                      d) schematic

Full form of PERT

- a) performance evaluation review tec hnique  
 b) programme evaluation and review technique  
 c) project evaluation and review technique  
 d) None of these

Fill In The Blanks

-----helps in determining the best course of action for a firm in view of the expected counter moves from the competitors?

-----represent the start or end of an activity

-----is a value of an element in a payoff matrix which is the minimum of its row as well as maximum of its column.

A feasible solution is said to be non degenerate if each allocation is -----

CPM stands for -----

(10 x 1=10 Marks)

### PART B

Answer any eight questions. Each carries 2 marks

11. What is management science?
12. What is dangling?
13. What is dummy activity?
14. What is Hurvicz criteria?
15. Define game theory?
16. What is pessimistic time estimate ( $t_p$ )?
17. Explain PERT?
18. What is independent float?
19. What do you mean by network analysis?
20. What is Laplace criteria?

(8x2=16 Marks)

### PART C

Answer any six questions. Each carries 4 marks

21. A firm engaged in producing two models viz, model X1 and model X2 performs only three operations- painting, assembly and testing. The relevant data are as follows

| Unit sale price |       | Hours required for each unit |          |         |
|-----------------|-------|------------------------------|----------|---------|
|                 |       | Assembly                     | Painting | Testing |
| Model X1        | Rs.50 | 1.0                          | 0.2      | 0.0     |
| Model X2        | Rs.80 | 1.5                          | 0.2      | 0.1     |

Total number of hours available each week is as under:-

Assembly 600,      Painting 100,      Testing 30

The firm wishes to determine its weekly product mix so as to maximize revenue. Formulate the problem as a LPP and solve it graphically.

Prepare a network arrow diagram for the following information

| Activity |   | Name of the activity | Pre-requisite activity | Estimated time |
|----------|---|----------------------|------------------------|----------------|
| 1        | 2 | A                    | None                   | 3              |
| 1        | 3 | B                    | None                   | 5              |
| 1        | 4 | C                    | None                   | 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              |

Write a note on Decision making under Risk?

From the following table find out the initial basic feasible solution by using Vogel's approximation method

|         |    | Destinations |     |     |     | Supply |
|---------|----|--------------|-----|-----|-----|--------|
|         |    | D1           | D2  | D3  | D4  |        |
| Origins | O1 | 22           | 26  | 34  | 28  | 500    |
|         | O2 | 32           | 36  | 28  | 20  | 600    |
|         | O3 | 42           | 48  | 26  | 20  | 800    |
| Demand  |    | 400          | 450 | 550 | 500 | 1900   |

Explain application areas of linear programming?

The probability of the demand for lorries for hiring on any day in a given district is as follows

|                          |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|
| No. of Lorries demanded: | 0   | 1   | 2   | 3   | 4   |
| Probability:-            | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |

Lorries have a fixed cost of Rs.90 each day to keep and the daily hire charges (net variable cost of hiring) is Rs.200. If the lorry hire company owns 4 Lorries, what is its daily expectations. If the company is about to go in to business and currently has no Lorries. How many Lorries should it buy?

Explain basic concepts of game theory along with features and assumption?

28. A company produces three types of cow boy hats A, B, C. From 3 raw material P, Q, R. one unit of product A require 4 unit of P and 6 unit of Q. one unit of product B require 4 units of Q and 10 units of R. one unit of product C require 6 unit of P, unit of Q and 8 units of R. the company has 16 units of material P, 20 units of Q and 30 units of R. profit per unit of product A, B and C are Rs.6, Rs.10 and Rs.8 respectively. Formulate the problem mathematically to maximize profit?

(6 x 4=24 Marks)

#### PART D

Answer any two questions. Each carries 15 marks

29. Solve the following transportation problem whose cost matrix availability at each plant and requirement at each warehouse are given as follows:

| PLANT  | WARE HOUSES |     |     |     | SUPLY |
|--------|-------------|-----|-----|-----|-------|
|        | W1          | W2  | W3  | W4  |       |
| P1     | 190         | 300 | 500 | 100 | 70    |
| P2     | 700         | 300 | 400 | 600 | 90    |
| P3     | 400         | 100 | 600 | 200 | 180   |
| DEMAND | 50          | 80  | 70  | 140 |       |

30. Solve the following LPP graphically

$$\text{Maximize } Z = 3x_1 + 4x_2$$

Subject to constraints:-

$$5x_1 + 4x_2 < 200$$

$$3x_1 + 5x_2 < 150$$

$$5x_1 + 4x_2 > 100$$

$$8x_1 + 4x_2 > 80$$

$$x_1, x_2 > 0$$

31. Write an essay on operations research models?

(2 x15 =30 Marks)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester BBA Degree Examination, March /April 2019  
BBBA4B06- Financial Management  
(2017 Admission onwards)

Time: 3 hours

Max. Marks: 80

**Part I**  
**Answer all questions**  
**Each questions carries 1 mark**

**Choose the correct answer**

1. The goal of financial management is:
 

|                                  |                      |
|----------------------------------|----------------------|
| a) maximising sales              | b) maximising profit |
| c) maximising shareholder wealth | d) none of the above |
2. Which of the following is not a capital budgeting decision?
 

|                           |                    |
|---------------------------|--------------------|
| a) expansion programme    | b) merger          |
| c) replacement of machine | d) inventory level |
3. ABC analysis is used in:
 

|                              |                         |
|------------------------------|-------------------------|
| a) cash management           | b) inventory management |
| c) physical asset management | d) credit management    |
4. Dividend irrelevance argument of MM Model is based on:
 

|                        |                          |
|------------------------|--------------------------|
| a) issue of debentures | b) issue of bonus shares |
| c) arbitrage           | d) hedging               |
5. 'Bird in hand' argument is given by:
 

|                   |                      |
|-------------------|----------------------|
| a) David Durand   | b) MM Model          |
| c) Gordon's Model | d) Traditional Model |

**Fill in the blanks:**

6. Traditional approach confines finance function only to.....
7. The capital budgeting method that ignores profitability and the time value of money is.....
8. Gross working capital means amount invested in ..... of a firm
9. Under NOI approach, the capital structure decision is.....
10. When dividend is paid in cash it is termed as.....

(10 x1 = 10 Marks)

## Part II

### Short answer type questions.

Answer any eight, each questions carries 2 marks

11. Define financial management.
12. What is capitalisation?
13. What is operating cycle?
14. What is net working capital?
15. Define NPV.
16. What is IRR?
17. How would you calculate cost of preference shares?
18. What do you mean by a levered firm?
19. What is interim dividend?
20. Mention any two assumptions of MM approach.

(8 x 2 = 16 Marks)

## Part III

### Short essay type questions.

Answer any six questions, each questions carries 4 marks.

21. What is finance function? What are its objectives?
22. Describe various Inventory control models.
23. Define the term 'factoring'. Briefly explain the mechanism of factoring.
24. The annual demand for a product is 6400 units. The unit cost is Rs.6 and the inventory carrying cost per unit per annum is 25% of the average inventory cost. The cost of procurement is Rs. 75. Determine:
  - a) EOQ
  - b) Number of order per annum
  - c) Time between two consecutive orders.
25. The shares of Alpha Ltd. are selling at RS. 80 per share and this company had paid a dividend of Rs. 8 / share last year. The investors expect a growth rate of 5% per year. Calculate cost of equity capital. If the expected growth rate is 7% per annum, calculate market price per share.
26. Calculate financial leverage and operating leverage from the following data:

10%, 2000 number of debentures @100 each  
Sales price: Rs.200  
Number of units produced: 1000 units  
Fixed cost: Rs.60000

Variable cost: 50% of sales

27. An investment proposal requires Rs. 250000. It will result in a cash inflow of Rs.50000 for eight years. Calculate payback period.
28. " The profit maximisation approach is not operationally feasible". Discuss.

**Part IV**

(6 x 4 = 24 Marks)

**Essay type questions.**

**Answer any two, each questions carries 15 marks**

9. Efficient cash management will aim at expediting cash inflows and slowing cash outflows". Discuss.
10. Management of a company has asked you to analyse two proposed capital investment projects using NPV method and post payback profitability method. Each project has a cost of Rs.1000000. Investor's required rate of return is 12%.

The pattern of cash inflow is as follows:

| Year | Project A (Rs.) | Project B (Rs.) |
|------|-----------------|-----------------|
| 1.   | 650000          | 350000          |
| 2    | 300000          | 350000          |
| 3.   | 300000          | 350000          |
| 4.   | 100000          | 350000          |
| 5.   | 100000          | 350000          |

The following information are supplied you in respect of Prax Ltd:

Capitalisation rate: 10%

Earnings per share: Rs. 12

Assumed rate of return on investment

a) 16%

b) 8%

c) 10%

Show the effect of dividend policy on market price of a shares using Walter's model at the following payout ratio: a) 0%, b) 50%, c) 75% and d) 100%.

(2 x 15 = 30 Marks)

54

B4M19155

(Pages : 2)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
 Fourth Semester BBA Degree Examination, March /April 2019  
 BBBA4B05 – Marketing Management  
 (2017 Admission onwards)

Time: 3 hours

Max. Marks: 80

**Part A**

**Answer all questions, each question carries 1 mark.**

**Fill up the blanks:**

..... refers to charging a high price initially.

There are ..... elements in marketing mix.

A registered brand name is called .....

..... is the last stage in the product life cycle.

FMCG stands for .....

**Choose the correct answer:**

Which of the following is not a characteristics of services?

- a) Perishability
- b) Tangibility
- c) Heterogeneity
- d) Intangibility

..... motives persuade a person to buy products from a particular shop.

- a) Patronage motive
- b) Product motive
- c) Internal motive
- d) Inherent motive

The most basic level of product is called:

- a) Core product
- b) Actual product
- c) Basic product
- d) Complimentary product

Which of the following is a rational buying motive?

- a) Love
- b) Prestige
- c) Durability
- d) Habit

..... involves direct personal contact between buyers and sellers.

- a) Sales promotion
- b) Advertisement
- c) Personal selling
- d) Publicity

**(10x1=10 Marks)**



### Part B

Answer any eight questions. Each question carries 2 Marks.

11. What is cost plus pricing?
12. Define product.
13. What is marketing myopia?
14. What is channel of distribution?
15. What is product line?
16. What is marketing management?
17. What do you mean by market logistics?
18. What is sub-culture?
19. What is brand loyalty?
20. What is demographic environment?

(8x2=16 Marks)

### Part C

Answer any six questions. Each question carries 4 marks.

21. Explain the scope of marketing.
22. Discuss the different types of buying behaviour.
23. Explain promotion mix.
24. What are the external factors affecting pricing decisions?
25. What are the components of brand equity?.
26. Distinguish between marketing and selling?
27. What are the different forms of outdoor advertising?
28. Explain the qualities of a good salesman.

(6x4=24 Marks)

### Part D

Answer any two question. Each question carries 15 Marks.

29. Explain different stages of new product development.
30. What is sales promotion? Explain the different methods of sales promotion.
31. Define market segmentation? Explain the bases of market segmentation.

(2x15=30 Marks)