



PG – 745

I Semester M.Com. (FA)/MFA Examination, January/February 2018
(CBCS)

Paper – 1.5 : Q.T. FOR ACCOUNTING AND FINANCE

Time : 3 Hours

Max. Marks : 70

Instruction : Answer all Sections.

SECTION – A

1. Answer **any seven** sub questions :

(7×2=14)

- a) What is a constraint ?
- b) Define capital budgeting.
- c) What is sensitivity analysis ?
- d) Differentiate between mutual exclusive and mutually independent events.
- e) What is a EOQ ?
- f) What is free float ?
- g) What is a Laplace criterion ?
- h) What is the difference between NPV and IRR ?
- i) What is duality in simplex problems ?
- j) What is pessimistic time ?

SECTION – B

Answer **any four** questions of the following :

(4×5=20)

2. A company produces two types of hats. Each hat of the first type requires twice as much labour time as the second type. If all hats are of the second type only, the company can produce a total of 500 hats a day. The market limits daily sales of the first and second types to 150 and 250 hats. Assuming that the profits per hat are Rs. 8 per type A and Rs. 15 for type B, formulate the problem as a linear programming model.
3. Explain ABC approach for inventory management.
4. State and explain Bayes Theorem.

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5. A die is rolled and a coin is tossed. Find the probability that the die shows an odd number and the coin shows a head.
6. The average life of a particular car battery is 4 years 4 months with a standard deviation of 8 months. The manufacturer guarantees to replace any battery that does not last 3 years. If the life these batteries are normally distributed what percentage of batteries could the manufacturer expect to replace ?
7. Discuss the need for risk analysis in capital budgeting.

SECTION – C

Answer **any three** questions. **Each** question carries **twelve** marks : **(3×12=36)**

8. Solve the LPP using penalty method

$$\text{Min } Z = 12X_1 + 20 X_2$$

Subjected to constraints

$$6X_1 + 8X_2 \geq 100$$

$$7X_1 + 12X_2 \geq 120$$

$$X_1, X_2 \geq 0$$

9. Discuss the procedure for drawing network using Fulkerson rule.
10. Your company is considering whether it should tender for two contracts MS1 and MS2 on offer from a government department for the supply of certain components, The company has three options.

Tender for MS1 only

Tender for MS2 only

Tender for both

If the tenders are to be submitted by the company will incur additional costs. The cost of tendering for contract MS1 only cost Rs. 50,000/-. The component supply cost if the tender is successful is Rs. 18,000/-. The cost of tendering for MS2 only is Rs. 14,000/-. The component supply cost if the tender is successful would be Rs. 12,000/-. The cost of tendering both is Rs. 55,000/-. The component supply cost if the tender is successful would be Rs. 24,000/-. Probability of getting tender is as shown below :



Option	Possible Prices	Probability of getting
MS1 Only	1,30,000	0.20
	1,15,000	0.85
MS2 Only	70,000	0.15
	65,000	0.80
Both	1,90,000	0.05
	1,40,000	0.65

What do you suggest and why ?

11. Discuss the application of quantitative techniques in business management.
12. Draw a network for the below project and identify the total time required to complete the project. Also calculate the earliest start, finish, latest start, finish and different floats

1-2	1-3	2-4	3-4	4-5	5-6	2-6	6-7
8	6	5	5	4	5	7	7