

MCO-022

Master of Commerce Online(MCOMOL)

Quantitative Analysis for Managerial Applications

Duration : 3 hours

Maximum marks : 100

Section-I :Short Answer Type Questions: Attempt Any Five
Question.(5x4=20)

1. Explain the purpose and methods of classification of data by giving suitable examples.
2. The mean monthly salary paid to all employees in a company is Rs. 16000. The mean monthly salaries paid to technical and non-technical employees are Rs. 18000 and Rs. 12000 respectively. Determine the ratio of technical and non-technical employees of the company.
3. Discuss Exponential Distribution with suitable example.
4. How does the practical utility of the central limit theorem impact applied statistics?
5. A person who sells magazines wants to find out the chances that on any day he will be able to sell more than 100 copies. From his diary where he has recorded the daily sales of last years, he finds out that out of 365 days, on 73 days he had sold 95 copies, on 146 days he had sold 73 copies, on 50 days, he had sold 110 copies and on 96 days he had sold 130 copies of the magazines. Calculate the required probability.
6. How would you conduct an opinion poll to determine students reading habits and preferences towards daily newspapers and weekly magazines?
7. A bag contains 8 white and 4 black balls. If 5 balls are drawn at random, what is the probability that 3 are white and 2 are black?

Section 2 :Medium Answer Type Questions: Attempt any five question(5*10=50)

8. Discuss the various sources and limitation of secondary data. Point out the precaution to be taken while using such data.
9. Explain the concept of variation? What problem situations call for the use of variation?
10. Briefly discuss the terms experiment, sample space, and event with examples.
11. What do you understand by the term correlation? Explain how the study of correlation helps in forecasting demand of a product.
12. (a) Compare time series analysis with other methods of forecasting.
(b) Summarise the strengths and weaknesses of various forecasting methods.
13. Find the Spearman's correlation coefficient between X and Y.

x	4	7	8	5	8	12
Y	7	6	6	4	6	10
14. What are quantiles? Compare and illustrate the concepts of quartiles deciles and percentiles.

Section 3 : Long Answer Type Questions: Attempt Any two (2*15=30)

15. Why is sampling necessary in statistical investigation? Explain the important methods of sampling commonly used. 7,8
16. Explain the meaning of Analysis of Variance(ANOVA)?Describe briefly the techniques of analysis of variance for one-way and two-way classification. 5,10
17. Describe the main features of decision theory and state its limitations. Also, discuss the certain key issues in decision theory. 10,5