

**A1002**

Name.....

Register No.....

**NAIPUNNYA INSTITUTE OF MANAGEMENT AND INFORMATION  
TECHNOLOGY (AUTONOMOUS)**

**FIRST SEMESTER END SEMESTER EXAMINATION NOVEMBER 2025**

**MASTER OF COMMERCE**

**MCM1C03 - QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS**

Time:Three Hours

Maximum:30 Weightage

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**Section A**

Answer any four questions not exceeding 100 words

Each question carries 2 weightage

1. What is hypothesis?	CO2
2. What is meant by non-parametric test?	CO3
3. Explain the role of quantitative techniques in managerial decision making	CO1
4. What are the limitations of tests of significance?	CO2
5. Summarize the key characteristics of a linear correlation between two variables.	CO4
6. State one assumption of ANOVA.	CO3
7. What is SPSS?	CO5

**Section B**

Answer any four questions not exceeding 300 words

Each question carries 3 weightage

8. Write a note on sampling distribution.	CO2
9. Explain the technique of analysis of variance for two way classifications?	CO3
10. What is F test? Mention 2 uses of F test.	CO3
11. What is the main advantage of using SPSS over Excel?	CO5
12. Describe any three major roles of quantitative techniques in managerial decision making.	CO1
13. From the following data, calculate Spearman's Rank Correlation:	

$$X = 68, 75, 80, 71, 69 \quad Y = 70, 78, 77, 72, 68$$

CO4

14. What are the merits of non parametric test?	CO3
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Turn Over

### **Section C**

Answer any two questions not exceeding 800 words  
Each question carries 5 weightage

15. Chi square is a test of homogeneity, goodness of fit and test of independence. Explain? CO3

16. What is Type I error and Type II error in test of hypothesis? CO2

17. A marketing research company conducted a survey regarding two types of credit cards. It selected a random sample of 100 card holders of each type and found that the average length of holding of type I was 89 months and that of type II 94 months. The population standard deviations are 9 months and 10 months respectively. Estimate a 95% interval for the difference between two population means. CO1

18. Obtain the rank correlation coefficient for the following data

$X = 68, 64, 75, 50, 64, 80, 75, 40, 55, 64$   $Y = 62, 58, 68, 45, 81, 60, 68, 48, 50, 70$

CO4

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