

FIRST SEMESTER M.Com DEGREE EXAMINATION, NOVEMBER 2021
(Regular/Improvement/Supplementary)

COMMERCE
FMCM1C03-QUNATITATIVE TECHNIQUES FOR BUSINESS DECISIONS

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Explain the uses of χ^2 test.
2. What is ANOVA?
3. Explain Syntax Editor.
4. What is normal distribution?
5. Explain the confidence interval.
6. Write a short note on one tailed and two tailed tests.
7. Describe briefly the situations in which Poisson distribution can be applied.

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Write a note on the properties of a good estimator.
9. There are 1000 students in a college out of 20,000 in the whole university. In a study 200 were found athletes in the college and 2000 in the whole university. Is there a significant difference between the proportion of athletes in the college and university? Explain.
10. Explain the data analysis tool pack in Excel.
11. Describe the difference between Correlation and Regression.
12. In an experiment of immunization of cattle from tuberculosis, the following results were obtained.

	Affected	Not affected
Inoculated	12	26
Not inoculated	16	6

Calculate χ^2 and discuss the effect of vaccine in controlling susceptibility to tuberculosis.

13. Elaborate on the application of Excel for quantitative methods.
14. A random sample of 2.7 pairs of observations from a normal population gives a correlation coefficient of .42. Is it likely that the variable in the population is uncorrelated?

(4 × 3 = 12 weightage)

(P.T.O.)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Fit a normal curve to the following data by the method of area.

Variable	Frequency
60-65	5
65-70	18
70-75	42
75-80	27
80-85	8

16. Calculate coefficient of correlation from the following data.

X:	100	200	300	400	500	600	700
Y:	30	50	60	80	100	110	130

17. Briefly explain the various parametric and non-parametric tests.
18. To verify whether the course in English improved the performance, a similar test was given to 10 participants both before and after the course. The original marks recorded in alphabetical order of participants were 45, 40, 60, 55, 30, 44, 70, 40, 67, 73. After the course the marks were in the same order 55,35,70,60,45,40,75,52,72,75. Was the course useful?

(2 × 5 = 10 weightage)