Second Semester FYUGP Commerce Examination
APRIL 2025 (2024 Admission onwards)
KU2DSCCOM110 (QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS)
(DATE OF EXAM: 30-4-2025)

Time : 120 min   Maximum Marks : 70

Part A (Answer any 6 questions. Each carries 3 marks)

1. What do you mean by dependent variable?   3

2. What are the uses of regression analysis?   3

3. Given the regression equation Y=3 + 2X. What is the value of Y when X=5?   3

4. Define Time Series.   3

5. Explain Multiplicative Model.   3

6. What is 'equally likely outcome'? Give two examples.   3

7. If $P(A) = 0.5$ and $P(B/A) = 0.6$, find P (A and B).   3

8. If $P(A) = 0.4$ and $P(B) = 0.5$, what is P (A B) if A and B are mutually exclusive?
                                                                   3

Part B (Answer any 4 questions. Each carries 6 marks)

9. Differentiate between Simple and Multiple Regression. When would you choose one over the other?   6

10. Find the most likely production corresponding to a rainfall 40" from the following data.

Particulars	Rainfall	Production
Average	30"	500 kg.
Standard Deviation	5"	100 kg.
Coefficient of correlation = 0.8		

                                                                   6

11. Describe the properties of regression coefficients.   6

12. Explain the different kinds of events.   6

13. Discuss the different schools of thought on the interpretation of probability.   6

14. A candidate is selected for interview for three posts. For the first post there were 3 candidates, for the second 4 and for the third 2. What is the probability that the candidate is selected for at least one post?   6

Part C (Answer any 2 question(s). Each carries 14 marks)

15. Discuss the applications and limitations of Quantitative Techniques in business.

14

16. Calculate rank Correlation coefficient between mark assigned to 10 students by judge X and Y.

Sl:No:	1	2	3	4	5	6	7	8	9	10
Mark by Judge X	52	53	42	16	45	41	37	38	25	27
Mark by Judge Y	65	68	43	38	77	48	35	30	25	50

14

17. Below are given the figures of production (in thousand quintals) of a sugar factory.

Year	2009	2010	2011	2012	2013	2014	2015
Production	80	90	92	83	94	99	92

a) Fit a straight-line trend
b) Eliminate the trend
c) Estimate the production for the year 2017

14