

25U261S

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Name:

Reg. No:

SECOND SEMESTER B.Com. PROFESSIONAL DEGREE EXAMINATION, APRIL 2026

(CUCBCSS-UG)

CC17UBCP2B08 - QUANTITATIVE TECHNIQUES FOR BUSINESS

(Core Course)

(2017 to 2023 Admissions – Supplementary)

Time: Three Hours

Maximum: 80 Marks

Part A

Answer **all** questions. Each question carries 1 mark.

1. An event whose occurrence is inevitable is called
 - (a) Sure event
 - (b) Impossible event
 - (c) Uncertain event
 - (d) Equally likely events.
2. Chi-square distribution is a
 - (a) Symmetrical distribution
 - (b) Discrete distribution
 - (c) Skewed distribution
 - (d) None
3. The level of probability of accepting a true null hypothesis is called
 - (a) Degree of freedom
 - (b) Level of significance
 - (c) Level of acceptance
 - (d) None of these
4. When $P(A \cup B) = P(A) + P(B)$, then A and B are
 - (a) Dependent
 - (b) Independent
 - (c) Mutually exclusive
 - (d) None of these
5. Mean of binomial distribution is
 - (a) np
 - (b) n+p
 - (c) n/p
 - (d) npq
6. A sample is small if number of items is
7. Rejecting a null hypothesis, when it is true is called error.
8. When the values of two variables move in the same direction, correlation is said to be
9. The parameter of poisson distribution is
10. refers to the chance of happening or not happening of an event.

(10 × 1 = 10 Marks)

Part B

Answer **any eight** questions. Each question carries 2 marks

11. Define Quantitative Techniques.
12. Define regression.
13. Write a short note on scatter diagram.
14. If $r = 0.6$ and $n = 64$. Find Probable error and standard error.

15. What do you mean by probable error?
16. Explain any two properties of binomial distribution.
17. What is chi-square test?
18. Define statistics and parameter.
19. Distinguish between dependent and independent events.
20. State the addition and multiplication theorem on probability.

(8 × 2 = 16 Marks)

Part C

Answer **any six** questions. Each question carries 4 marks

21. Explain the limitations of quantitative techniques.
22. Explain the different approaches to the Theory of Probability.
23. Distinguish between correlation and regression.
24. What are the properties of Normal distribution?
25. What is hypothesis testing? Enumerate the steps in testing of hypothesis?
26. Find the coefficient of correlation between X and Y and interpret the result.

X :	42	44	58	55	89	98	66
Y :	56	49	53	58	65	76	58

27. The distribution of marks obtained by a group of students is normal with mean 50 marks and Standard deviation 15. Estimate the percentage of students with marks below 35.
28. One bag contains 5 white and 3 black balls. Another contains 4 white and 6 black balls. One ball is drawn from each bag. Find the probability that both are of same colour.

(6 × 4 = 24 Marks)

Part D

Answer **any two** questions. Each question carries 15 marks

29. Test whether there is any significant difference between productions of three varieties.

A	14	16	18		
B	14	13	15	22	
C	18	16	16	19	20

30. Explain the various methods of classifying quantitative techniques.
31. Using rank correlation determine the relationship between Debenture prices and Share prices.

Year	:	1	2	3	4	5	6
Debenture price	:	97.8	99.2	98.8	98.3	98.4	96.7
Share price	:	73.2	85.8	78.9	75.8	77.2	87.2

(2 × 15 = 30 Marks)
