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Name:

Reg. No:

SECOND SEMESTER B.Com. (PROFESSIONAL) DEGREE EXAMINATION, APRIL 2023

(CUCBCSS-UG)

(Regular/supplementary/Improvement)

CC17U BCP2 B08 – QUANTITATIVE TECHNIQUES FOR BUSINESS

(Core Course)

(2017 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

PART A

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

1. Two events are said to be when the occurrence of any one of them precludes the occurrence of the other
a. Dependent b. Equally likely c. Exhaustive d. Mutually exclusive
2. Which among the following is not a probability?
a. 0 b. 1 c. -0.5 d. none
3. If plotted points in a dot chart lie on a straight line parallel to X axis, it shows of correlation
a. High degree b. Low degree c. Absence d. None
4. Coefficient of concurrent deviation depends on
a. The sign of variation b. Magnitude of deviation
c. Both a and b d. None
5. If X and Y are independent the value of regression coefficient b_{yx} is equal to
a. 0 b. 1 c. Infinity d. None

Fill in the blanks:

6. Regression line is called as
7. The error existing due to drawing inferences about the population on the basis of few observation is called as
8. gives the percentage variation in the dependent variable in relation with independent variable
9. Relative frequency approach to probability is also known as
10. Parameter of a poisson distribution is also known as

(10 × 1 = 10 Marks)

PART B (Short Answer Questions)

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

11. Explain random experiment?
12. Explain concurrent deviation method?
13. Define test of goodness of fit?
14. Define power of a test?
15. What is a parameter?
16. Explain any two properties of Normal distribution?
17. Define uncertain events?
18. What do you mean by simple event?
19. Relation between correlation coefficient and regression coefficients?
20. What do you mean by lead correlation?

(8 × 2 = 16 Marks)

PART C (Short Essays)

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

21. Find the correlation between price and demand

Price	:	30	35	40	42	45
Demand	:	30	25	20	18	10
22. Find the regression equation of x on y

X	:	5	7	8	12	18
Y	:	8	6	9	10	17

23. Write short note on the following?

1. Sample space
2. Exhaustive events
3. Impossible events
4. Dependent event

24. A ball is drawn from a bag containing 6 white, 4 Red and 7 green balls. Find the probability of drawing 1. Red ball 2. White ball 3. Green ball 4. White or green.

25. Explain procedure for testing hypothesis?

26. A car hire firm has 3 cars which it hires out day by day. The number of demands for a car on each day is distributed as a poisson variate with mean 1.5. Calculate the proportion of days on which 1. Neither car is used. 2. Some demand is refused.

27. In a normal distribution 31% of distribution are under 45 and 8% are over 64. Find mean and S.D.

28. A stenographer claims that she can take dictations at the rate of more than 120 words per minute. Of the 12 test given to her she could perform an average of 135 words with a standard deviation of 40. Is her claim valid?

(6 × 4 = 24 Marks)

PART D (Essay Question)

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

29. Write short notes on the following?

1. Type1 and Type 2 errors.
2. Nonparametric test with example.
3. Different kinds of correlation.
4. Conditional probability.
5. Contingency table.

30. Explain the procedure for Oneway Analysis of variance?

31. Calculate rank correlation from the following data?

X	48	33	40	9	16	16	65	24	16	57
Y	13	13	24	6	15	4	20	9	6	19

(2 × 15 = 30 Marks)
