21U249 (Pages: 2) Name: ……..

Reg. No: …….…….

SECOND SEMESTER B.Com. PROFESSIONAL DEGREE EXAMINATION, APRIL 2022

(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*** questions. Each question carries 1 mark.

1. "A posteriori" probability is the other name of …… probability approach

   a) Axiomatic b) classical c) Modern d) Relative frequency

2. The correlation coefficient has a least value

   a) 0 b) – 1 c) -2 d) +1

3. The probability of getting a spade king from a pack of cards

   a) 2/52 b) 3/52 c) 4/52 d) 1/52

4. The null hypothesis is denoted by

   a) H_0 b) H_1 c) H_2 d) none

5. If the two regression co-efficients are -0.8 and -0.2 then value of "r" is

   a) -0.16 b) 0.4 c) +0.16 d) -0.4

6. …… Correlation is suitable for qualitative variables.
7. Accepting hypothesis when it is false is ……
8. A …… Is function of population value.
9. Binomial distribution is also known as …… Distribution.
10. Regression line is called as ……

(10 × 1 = 10 Marks)

PART B

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

11. What is meant by exhaustive events?
12. What is level of significance?
13. What do you mean by partial correlation?
14. What is regression analysis?
15. Define equally likely events.
16. Compute S.E if population S.D is 6.3 and n=100.
17. Define dependent events.
18. What is Type I error?

19. What do you mean by Test Statistic?

20. Describe chi-square quantity.

(8 × 2 = 16 Marks)

PART C

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

21. What are the major limitations of quantitative techniques?

22. Find mean and variance from the following.

X	0	1	2	3	4
P(X)	1/4	1/5	2/5	1/8	1/40

23. Explain difference between correlation and regression?

24. Three coins are tossed, what is the probability of obtaining?

    1) All heads 2) at least 2 heads 3) at the most one head 4) two heads

25. Explain properties of Poisson distribution.

26. Find coefficient of correlation from the following data.

X	12	20	35	22	18	24	15
Y	30	35	28	29	25	30	25

27. A die is thrown 150 times. Test the hypothesis that the die is unbiased.

X	:	1	2	3	4	5	6
Frequency	:	19	23	28	17	32	31

28. Write short note on variance ratio test.

(6 × 4 = 24 Marks)

PART D

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

29. The probability that doctor A will diagnose disease B correctly is 0.7. The probability that a patient will die by his treatment after correct diagnosis is 0.4, and the probability of death by wrong diagnosis is 0.7. A patient of the doctor who had the disease B died. What is the probability that his disease was not correctly diagnosed?

30. From the following data use chi-square test to test whether education depends on sex.

SEX	EDUCATION		
	MIDDLE	HIGHSCHOOL	COLLEGE
MALE	52	10	20
FEMALE	44	12	26

31. Explain procedure for two classification of ANOVA.

(2 × 15 = 30 Marks)

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