

18U271

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Name.....

Reg. No.....

**SECOND SEMESTER B.Com (PROFESSIONAL) DEGREE EXAMINATION, APRIL 2019**

(Regular/Supplementary/Improvement)

(CUCBCSS-UG)

**CC17U BCP2 B08 - QUANTITATIVE TECHNIQUES FOR BUSINESS**

B.Com. Professional - Core Course

Time : Three Hours

Maximum : 80 Marks

**Part A**

Answer *all* questions. Each question carries 1 mark

1. Let 'S' denotes the sample space. Then  $P(S) =$ 
  - (a) 0
  - (b) 1
  - (c) infinity
  - (d)  $0 \leq P(A) \leq 1$ .
2. An event whose occurrence is inevitable is called
  - (a) Sure event
  - (b) Impossible
  - (c) Uncertain event
  - (d) Equally likely events.
3. Chi-square distribution is a
  - (a) Symmetrical distribution
  - (b) Discrete distribution
  - (c) Skewed Distribution.
  - (d) None of the above.
4. Non-Linear correlation is also called
  - (a) Zero Correlation
  - (b) Curvi-linear correlation
  - (c) Correlation graph
  - (d) None of the above.
5. Mean of Poisson distribution
  - (a) m
  - (b)  $m^2$
  - (c) 2m
  - (d) None of these

Fill in the blanks :

6. Study of correlation between two sets of data is called .....
7. Regression lines are also called as .....
8. An event whose occurrence is neither sure nor impossible is called .....
9. Two dice are thrown, probability of getting a sum of two is .....
10. Poisson distribution is a ..... probability distribution.

**(10 x 1 = 10 Marks)**

(1)

**Turn Over**

**Part B**

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

11. Define any two limitations of quantitative techniques.
12. Explain two different kinds of correlation.
13. If  $r = 0.6$  and  $n = 64$ . Find Probable error and standard error.
14. What is level of significance of a test?
15. What is the relation between regression co-efficient and standard deviation?
16. Define Binominal distribution.
17. Define chi-square test.
18. Define significant difference.
19. Define correlation.
20. Define statistics and parameter.

**(8 x 2 = 16 Marks)**

**Part C**

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

21. State and prove multiplication theorem for probability.
22. Explain scattered diagram with example.
23. Explain Type 1 and Type 2 errors.
24. A telephone exchange receives on an average 4 calls per minute. Find the probability of
  - a) Two or less calls per minute
  - b) More than 4 calls per minute
25. Find correlation from the following data.
 

X:	2	3	4	5	6	7	8
Y:	4	5	6	12	9	5	4
26. Three letters are selected from the letters of the WORD ASSASSINATIONS. What is the probability of
  1. Getting two A and one N
  2. At least one A
27. Find mean and variance of the following probability distribution.
 

$P(0) = 1/8, P(1) = 3/8, P(2) = 3/8, P(3) = 1/8$
28. Probability that a batsman scores a century in a cricket match is  $1/3$ . What is the probability that in 4 matches, he will score century in at least 2 matches?

**(6 x 4 = 24 Marks)**

(2)

**Part D**

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

29. The two regression equations between X and Y are given by  $2x + 3y - 70 = 0$  and  $3x + 2y - 80 = 0$   
Find
  1. Arithmetic means of X and Y
  2. Regression Coefficients
  3. Correlation co-efficient between X and Y
30. Define probability distribution of a random variable. Also explain different types of probability distribution.
31. The results of a survey to know the educational attainment among 100 persons randomly Selected in a locality are given below.

	Education Level		
Gender	Middle	High school	College
Male	52	10	20
Female	44	12	26

Can you say that education depends on Sex ?

**(2 x 15 = 30 Marks)**

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