19U365S (Pages: 3) Name: ……

Reg. No…….....

THIRD SEMESTER B.B.A. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS-UG)

CC15U BB3 C03 - QUANTITATIVE TECHNIQUES FOR BUSINESS MANAGEMENT

(Complementary)

(2015 to 2018 Admissions – Supplementary/Improvement)

Time: Three Hours Maximum: 80 Marks

Part A

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

I. Fill in the Blanks:

1. Binomial distribution is originated by .....
2. ..... research is a quantitative technique applied in the process of decision making.
3. When the amount of change in one variable leads to a constant ratio of change in the other variable, correlation is said to be .....
4. The regression coefficient of Y on X is denoted by
5. Sample point is also called .....

II. Choose the correct answer:

6. When the occurrence of an event is certain, probability of the event is equal to:
   (a) Zero (b) Equal to one (c) More than one (d) less than zero
7. If A and B are two mutually exclusive events then probability of (AUB) is equal to
   (a) P(AB) (b) P(A) + P(B) (c) P(A) x P(B) (d) P(AB)/ P(B)
8. The probability of getting 3 with one die and five with another die by throwing simultaneously two six faced dice is;
   (a) 1/36 (b) 1/12 (c) 2/36 (d) 2/12
9. Mean of a binomial distribution is .....
   (a) n (b) np (c) npq (d)√npq
10. An event whose occurrence is inevitable is called .....
    (a) sure event (b) impossible event (c) uncertain event (d) none of these

(10 × 1 = 10 Marks)

Part B

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

11. Define Quantitative Techniques.
12. Define the term “Probability”.
13. What is meant by sample space?
14. Define “Independent event”.
15. State any two properties of correlation coefficient.
16. Define ‘Hypothesis’
17. What do you mean by Standard Error?
18. What is analysis of variance?
19. State the Addition Theorem of Probability.
20. What is ANOVA?

(8 x 2 = 16 Marks)

Part C

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

21. Explain the different approaches to the Theory of Probability.
22. What are the properties of Normal distribution?
23. Discuss the role of correlation in business and economic studies.
24. In a box there are 8 white, 6 blue and 10 pink balls. If 3 balls are drawn at a random from the box. What is the probability that?
    (a) 2 balls are white
    (b) None of 3 is pink
    (c) 3 balls are blue.
25. Fit a binomial distribution of the following data relating to the number of seeds germinating out of 10 on damp filter for 80 set.

X	:	0	1	2	3	4	5	6	7	8	9	10
F	:	6	20	28	12	8	6	0	0	0	0	0

26. Between the hours 10 AM and 11AM, the average number of customers coming to a retail shop is 2.5. find the probability that during one particular hour there will be;
    (a) Exactly 3 customers coming
    (b) No customers coming
    (c) At least 3 customers coming to the shop

27. The weekly wages of 10000 workers are normally distributed with around a mean of Rs. 700 and with SD of Rs.50. estimate the number of workers whose weekly wages will b.
    (a) Between Rs.700 and 720
    (b) Between Rs. 690 and 720
28. Distinguish between Correlation and Regression.

(6 x 4 = 24 Marks)

Part D

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

29. Discuss the applications of QT in business.
30. For random sample of 100 workers from Kerala, the average daily wage was Rs. 105 with a SD of Rs.15. for a sample of 150 workers from Assam; the corresponding figures are Rs. 80 and 10 respectively. Can it be concluded that the average wages of workers in Kerala is more than that of average wages of workers of Assam.
31. From the following information obtain 2 regression equations and coefficient of correlation

X:	5	7	8	9	6
Y:	2	3	6	5	4

(2 x 15 = 30 Marks)

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