19U246 (Pages: 3) Name: ….……..

Reg. No...…….…….

SECOND SEMESTER B.Com. (PROFESSIONAL) DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

CC15U 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. If the actual and estimated value are same the standard error of estimate will be ……

   (a) 0 (b) 1 (c) 2 (d) 3 or more

2. Regression analysis consist of …… coefficients

   (a) 1 (b) 2 (c) 3 (d) none of the above

3. When two events cannot occur together, they are called ……

   (a) Equally likely (b) mutually exclusive

   (c) Sure event (d) none of these

4. A bag contains four white and three black balls. The odds against drawing a white ball is ……

   (a) 3:4 (b) 4:3 (c) 3:7 (d) 4:7

5. Normal distribution is …….

   (a) Continues (b) discrete (c) a or b (d) none of the above

Fill in the blanks

6. …… is the original hypothesis
7. A sample is small if no of items is ……
8. Analysis of variance utilizes ……
9. The statistical tests which do not follow any assumption about population parameter are ……
10. The variable distributed according to the normal curve is a ……

(10 x 1 = 10 Marks)

PART B

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

11. What is quantitative techniques?
12. Define Probability.

13. Define probable error.
14. What are the two regression equations?
15. Define complement of an event.
16. Explain any two properties of binomial distribution.
17. What is sampling distribution means?
18. What is Yates correction.
19. Explain perfect correlation.
20. What is meant by standard normal curve?

(8 x 2 = 16 Marks)

PART C (Short answer questions)

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

21. Explain scatter diagram with example.
22. Find regression equation of y on x

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

23. Three letters are selected from the word ASSASSINATIONS. What is the probability that?

(1) All are "S" (2) Two "A" and one "N"

(3) Exactly one "I" (4) At least one "A"

24. It is known from past experience that in a certain plant there are on the average 4 industrial accidents per month. Find the probability that in a given year there will be less than 3 accidents.
25. Weekly wages of 1000 workman are normally distributed with a mean of 70 and standard deviation 5. Estimate the no of workers whose wages will lie between 69 and 72.
26. Define type1 type2 errors
27. Define non_ parametric rest
28. From the following table test whether the colour of the son's s eye is associated with that of the fathers.

	Son's eye colour	
Father's eye colour	Light	Not light
Light	471	151
Not light	414	230

(6 x 4 = 24 Marks)

PART D (Essay Questions)

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

29. Perform analysis of variance from the following data

Foundry	Throughput obtained								
A	84	60	40	47	34				
B	67	92	95	40	98	60	59	109	86
C	46	93	100						

30. Fit a Poisson distribution for the following data

No of mistakes	:	0	1	2	3	4
No of pages	:	211	90	19	5	0

31. Define probability, sample space different types of events addition and multiplication rule for probability, Bayes theorem

(2 x 15 = 30 Marks)

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