

D 12360

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Name.....

Reg. No.....

THIRD SEMESTER B.B.A. DEGREE EXAMINATION, NOVEMBER 2016

(CUCBCSS—UG)

Complementary Course

BBA III C 03—QUANTITATIVE TECHNIQUES FOR BUSINESS

Time : Three Hours

Maximum : 80 Marks

Part I

Answer all questions.

1. Standard deviation of the sampling distribution is called :
 - (a) Probable error.
 - (b) Standard error.
 - (c) Mean deviation.
 - (d) Coefficient of variation.
2. Mean, Median and Mode are equal for :
 - (a) Binomial distribution.
 - (b) Poisson distribution.
 - (c) Normal distribution.
 - (d) None of these.
3. The idea of testing of hypothesis is first set forth by :
 - (a) R.A Fisher.
 - (b) J. Neyman.
 - (c) Karl Pearson.
 - (d) James .Bernouli.
4. Which of the following is not a parametric test :
 - (a) Chi square test.
 - (b) Z-test.
 - (c) *t*-test.
 - (d) None of these.
5. CPM stands for :
 - (a) Critical process method.
 - (b) Critical Path Method.
 - (c) Critical Performance Measurement.
 - (d) Critical Programme method.
6. npq is the variance of :
 - (a) Binomial distribution.
 - (b) Poisson distribution.
 - (c) Normal Distribution.
 - (d) None of these.

Turn over

7. An approximate relation between MD about mean and SD of a normal distribution is _____.
- (a) $5MD = 4SD$. (c) $3MD = 2SD$.
 (b) $3MD = 3SD$. (d) $4MD = 2SD$.
8. A normal distribution requires two parameters, namely the mean and _____.
- (a) Median. (c) Standard deviation.
 (b) Mode. (d) Mean Deviation.
9. The hypothesis under test is :
- (a) Alternative Hypothesis. (c) Null Hypothesis.
 (b) Simple hypothesis. (d) All of these.
10. Quartile deviation of normal distribution is equal to :
- (a) $4/5$ S.D. (c) $2/3$ S.D.
 (b) $3/4$ S.D. (d) 1 S.D.

(10 × 1 = 10 marks)

Part II (Short Answer Questions)*Answer any eight questions.*

11. Define quantitative technique.
12. What is axiomatic approach to probability ?
13. What do you mean by multiple regressions ?
14. What is statistical inference ?
15. Write a note on two tailed and one tailed tests.
16. Define ANOVA.
17. A trucking company to test the average life of each of the four brands of tyre's. The company uses all brands on randomly selected trucks, the record showing the lives (thousands of miles) of tyre's are as given :

Brand 1	Brand 2	Brand 3	Brand 4
20	19	21	15
23	15	19	17
18	17	20	16
17	20	17	18

Test the hypothesis that the average life of each brand of types is the same. Assume $\alpha = 0.01$

18. Define Probability.
19. What is random variable ?
20. What are different types of quantitative techniques ?

(8 × 2 = 16 marks)

Part III (Short Essays)*Answer any six questions.*

21. What are the difference between regression and correlation ?
22. Explain Baye's Theorem.
23. Write a note on limitations of quantitative techniques.
24. Write a note on uses of T- test.
25. Explain the terms :
 - (a) Level of significance.
 - (b) Critical values.
 - (c) Degree of freedom.
 - (d) Statistics and parameter.
26. State the importance and uses of Normal distribution.
27. From the data given below find the regression equation of x on y :

X	:	5	6	7	3	2
Y	:	4	5	2	8	1
28. What is non parametric test ? What are the steps involved in it ?

(6 × 4 = 24 marks)

Part IV (Long Essay)*Answer any two questions.*

29. From the following data obtain the two regression equations :

Sales	:	91	97	108	121	67	124	51	73	111	57
Purchases	:	71	75	69	97	70	91	39	61	80	47
30. The variable X follows Normal Distribution with mean 45 and S.D 10. Find the probability that :
 - (a) $x > 60$.
 - (b) $40 < x < 56$.
31. Define correlation ? Explain the different methods for studying correlation.

(2 × 15 = 30 marks)