M 8839

Reg. No. : .....

Name : .....

II Semester B.B.A./B.B.A. T.T.M./B.B.A. R.T.M. Degree (CCSS – 2014 Admn. – Regular) Examination, May 2015

COMPLEMENTARY COURSE

2C03 BBA/BBA (TTM)/BBA (RTM) : Quantitative Techniques For Business Decisions

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer the **4** questions. **Each** question carries $^1/_2$ marks.

1. Explain Random Experiment.
2. What is Poisson distribution ?
3. Explain ANOVA Table.
4. What do you mean by non-parametric test ?

($4 \times {}^1/_2 = 2$)

SECTION – B

Answer **any four** questions. **Each** question caries **1** mark.

5. State the limitations of quantitative techniques.
6. State the practical situations where Poison distribution can be used ?
7. What is mutually exclusive events ?
8. What is the probability of getting at least one head while tossing three unbiased coin ?
9. What is standard error ?
10. What do you mean by 'F' Test ?

($4 \times 1 = 4$)

P.T.O.

SECTION – C

Answer **any six** questions. **Each** question carries **3** marks.

11. State the functions of quantitative techniques.

12. What are the properties of Bi-nomial distribution ?

13. A bag contains 4 white and 6 black balls. Two balls are drawn at random. What is the probability that (a) Both are white (b) Both are black.

14. A card is drawn at random from an ordinary pack of 52 cards. Find the probability that the card drawn is either spade or diamond.

15. Consider families with 4 children each. What percentage of families do you expect to have (a) at the most two girls. (b) at least one boy.

16. If 3% of electric bulbs manufactured by a Company are defective, find the probability that in a sample of 100 bulbs, exactly five bulbs are defective.

17. In a competitive examination, 5,000 students have appeared for a paper in economics. Their average mark was 62 and standard deviation was 12. If there are 100 vacancies. Find the minimum marks that one should score in order to get selected.

18. It is claimed that a random sample of 100 cycle tubes with mean life of 15269 km. is drawn from a population of tubes which has a mean life of 15200 km and standard deviation of 1248 km. Test the validity of the claim. **(6×3=18)**

SECTION – D

Answer **any two** questions. **Each** question carries **8** marks.

19. A company produces a product of four size of small, medium, large and extra large. In the past the demand for these sizes has been fairly constant at 20% for small, 45% for medium, 25% for large and 10% for extra large. A random sample of 400 recent sales included 66 small, 172 medium, 109 large and 53 extra large. Test whether there is evidence of significant change in demand for the different sizes.

20. Set up ANOVA table for the following per hectare yields for there varieties of wheat, each grown in four plots.

Per hectare yield (in hundred kgs)

Plot of land	Variety of wheat		
	A_1	A_2	A_3
1	6	5	5
2	7	5	4
3	3	3	3
4	8	7	4

Work out F ratio to test whether there is significant difference among the average yields in three varieties of wheat.

21. Two urns contain respectively 10 white, 6 red, 9 black balls and 3 white, 7 red and 15 black balls. One ball is drawn from each urn. Find the probability that :

a) Both ball are red.

b) Both balls are of the same colour. **(2×8=16)**