Reg. No. : ....

Name : ....

II Semester B.B.A./B.B.A.T.T.M./B.B.A.R.T.M. Degree
(CCSS – Reg./Supple./Improv.) Examination, May 2016
COMPLEMENTARY COURSE
2C03 BBA/BBA(TTM)/BBA(RTM) : Quantitative Techniques for Business Decisions
(2014 Admn. Onwards)

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer the 4 questions. **Each** question carries $\frac{1}{2}$ mark.

1. What is sample space ?

2. Explain Null Hypothesis.

3. What do you mean by type II error ?

4. What is Chi-square test ?

$(4 \times \frac{1}{2} = 2)$

SECTION – B

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

5. State any four functions of quantitative techniques.

6. Explain any four properties of Binomial distribution.

7. What is exhaustive events ?

8. What is the probability of getting at least two heads while tossing three unbiased coin ?

9. Explain one tailed test.

10. State the features of variance analysis.

$(4 \times 1 = 4)$

P.T.O.

SECTION – C

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

11. Explain the scope of quantitative techniques.

12. State the practical situations where Poisson distribution can be used.

13. A candidate is selected for interview in three different posts. There are 3 candidate for the first post, 4 for the second post and 2 for the third post. What is the probability that he will be selected for one of the post.

14. Find the probability of drawing an Ace or a spade from a pack of cards.

15. 4 dies are thrown 162 times. The occurrence of '2 or 3' is considered a success. In how many throws, do you expect exactly 2 success.

16. It is known from the 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. Assume Poisson distribution.

17. The weekly wages of 1000 workmen are normally distributed around a mean of Rs. 70 and with a standard deviation of Rs. 5. Estimate the number of workers whose weekly wages will be between Rs. 70 and Rs. 72.

18. The mean life of 100 tube light produced by a company is computed to be Rs. 1,570 hours with standard deviation of 120 hours. The company claims that the average life of the tubes produced by the company is 1600 hours. Using the level of significance of 0.05, is the claim acceptable. (6×3=18)

SECTION – D

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

19. In 120 throws of a single die, the following distribution of faces was observed :

Face :	1	2	3	4	5	6
Frequency :	30	25	18	10	22	15

Can you say, the die is biased.

20. There are three main brands of a certain powder. A set of 120 sample values are examined and found to be allocated among four groups (A, B, C and D) and three brands (I, II and III) as shown here under :

Brand	Group			
	A	B	C	D
I	0	4	8	15
II	5	8	13	6
III	18	19	11	13

Is there any significant difference in brands performance ? Answer at 5% level, using one way ANOVA.

21. In a certain town, 20% samples of the population is literate and assume that 200 investigators take samples of ten individuals to see whether they are literate. How many investigators would you expect to report that three people or less are literates in the samples ? (2×8=16)

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