



**K21U 3641**

Reg. No. : .....

Name : .....

**II Semester B.B.A./B.B.A. T.T.M./B.B.A. R.T.M. Degree (CBCSS – Supple.)  
Examination, April 2021  
(2014 – 2018 Admission)  
Complementary Course  
2C03 BBA/BBA (TTM)/BBA (RTM) : QUANTITATIVE TECHNIQUES FOR  
BUSINESS DECISIONS**

Time : 3 Hours

Total Marks : 40

**SECTION – A**

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

1. What is differentiation ?
2. Define probability.
3. What do you mean by binomial distribution ?
4. What is null hypothesis ?

**SECTION – B**

Answer 4 questions. **Each** carries 1 mark.

5. What is Type I error and Type II error ?
6. What are the characteristics of parametric test ?
7. Explain normal distribution.
8. Mention any two merits of Poisson distribution.
9. What is random experiment ?
10. List out the areas where quantitative techniques have application.

P.T.O.



## SECTION – C

Answer any 6 questions (not exceeding one page). Each carries 3 marks.

11. Explain the multiplication theorem.
12. Explain the Chi-square test.
13. Explain the properties of normal distribution.
14. In drawing one card from a pack of 52 cards, find the probability that a single draw will be either a face card or spade card.
15. In an examination paper on statistics 10 questions are set. In how many different ways can an examinee choose 7 questions ?
16. Find the binomial distribution with mean 3 and variance 2.
17. Find the probability that the number of heads lie in the range 185 and 220 when a fair coin is tossed 400 times.
18. The standard deviation of two sample size 10 and 14 from two normal populations are 3.5 and 3 respectively. Examine whether the standard deviations of the populations are equal.

## SECTION – D

Answer any 2 questions. Each carries 8 marks.

19. A random sample of 200 villages was taken from district A and average population per village was 485 with S.D 50. Another random sample of 250 villages from the same district gave an average population of 510 per village with S.D of 40. Is the difference between the averages of the two samples statistically significant ?
20. Four cards are drawn from a full pack of cards. Find the probability that :
  - There is one card of each suit.
  - Two cards are spades and two are hearts
  - All the four are kings
  - All the four are spades and one of them is a king.
21. The income distribution of workers in a certain factory was found to be normal with mean Rs. 1,000 and S.D is Rs. 100. There were 180 persons getting above Rs. 1,200. How many persons were there in all ?