Second Semester B.B.A./B.B.A. (A.A.M.)/B.B.A. (H.A.)/B.B.A. (R.T.M.) Degree (CBCSS – OBE – Regular/Supplementary/Improvement) Examination, April 2024

(2019 – Admission Onwards)

COMPLEMENTARY ELECTIVE COURSE

2C03BBA/BBA(RTM)/2C03AAM : Quantitative Techniques for Business Decisions

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** questions. Each question carries **1** mark.

1. What is a random Experiment ?

2. What is a normal distribution ?

3. What is Standard Error ?

4. What is Type I Error ?

5. What is one tailed test ?

6. What do you mean by Hypothesis Testing ?

(6×1=6)

SECTION – B

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

7. Two coins are tossed simultaneously. What is the probability of getting a head and a tail ?

8. Comment on the following :
   For a binomial distribution, mean = 7 and variance = 11.

9. Write the characteristics of normal curve.

P.T.O.

---

10. A book contains 100 misprints distributed randomly throughout its 100 pages. What is the probability that a page observed at random contains at least two misprints. Assume Poisson distribution.

11. Find the probability that the standard normal variate lies between 0 to 1.5 .

12. What is Quantitative Techniques ?

13. What do you mean by parametric test and non parametric test ?

14. What is the level of significance ?

(6×2=12)

SECTION – C

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

15. Explain the limitations of Quantitative Techniques.

16. A bag contains 7 red, 12 white and 4 green balls. What is the probability that 3 balls drawn are all white ?

17. Two students X and Y work independently on a problem. The probability that X will solve it is 3/4 and the probability that Y will solve it is 2/3. What is the probability that the problem will be solved ?

18. The probability that an evening college student will graduate is 0.4 . Determine the probability that out of 5 students
    a) none
    b) one and
    c) at least one will graduate.

19. If the mean of a Poisson Distribution is 4, find
    1) S.D.
    2) β_1
    3) β_2.

20. Find the area to the right of Z = 0.25.

(4×3=12)

SECTION – D

Answer **any two** questions. **Each** question carries **5** marks.

21. A University has to select an examiner from a list of 50 persons, 20 of them women and 30 men, 10 of them knowing Hindi and 40 not 15 of them being teachers and the remaining 35 not. What is the probability of the University selecting a Hindi – knowing woman teacher.

22. Fit a Poisson Distribution to the following data and calculate the theoretical frequencies.

x : 0	1	2	3	4
f : 123	59	14	3	1

23. The Lifetime of a certain kind of battery has a mean of 300 hours and a standard deviation of 35 hours. Assuming that the distribution of lifetimes, which are measured to the nearest hour, is normal, find the percentage of batteries which have lifetime of more than 370 hours.

24. What are the application of Quantitative Techniques ?

(2×5=10)

_____