THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2023
BBA
ABBA3C03T: QUANTITATIVE TECHNIQUE FOR BUSINESS MANAGEMENT

Time: 3 hours   MaximumMarks:80

Choose the correct answer. Each question carries 1 mark.
1. An event whose occurrence is inevitable is called……………….

    A) Sure event B) Impossible event   C) uncertain   D) equally likely events

2.   A normal distribution is an approximation to......
        A) Binomial distribution   B)Poisson distribution   C)continuous distribution

        D) None of the above

3   ....is the original hypothesis

        A) Null hypothesis   B) alternate hypothesis   C) statistical hypothesis   D)

        none of the above

4. Let "s" denote the sample space, then p (s) =

        A) 0   B) 1   C) infinity   D)$0 \leq p(A) \geq 1$

5.P (B/A)

        A) $\underline{P(A \cap B)}$ B) P(A)*P(B) C)) $\underline{P(A \cap B)}$ D)P(A)+P(B)
p(A)p(B)

Fill in the Blanks. Each question carries 1 mark
6. When r = -1, we may say that, there is ……………………
7. If A and B are two mutually exclusive events, then P ($\cap$B) =
8. The height of normal curve is maximum at …………………..
9. Poisson distribution was developed by…………………
10. The rank correlation coefficient is always………………….

                                                        (10x1=10 Marks)
Answer any eightquestions. Each question carries 2 marks.
11. What is inverse probability?
12. What is non-parametric test?
13. Point out the methods of studying correlation?
14. What is standard error?
15. What is permutation?
16. Define pay-off?

17. What are the main properties of linear programing problems?
18. What are the characteristics of operations research technique?

19. Distinguish between iconic model and analogue model?

20. Define critical path method

(8x2=16 Marks)

Answer any six questions. Each question carries 4 marks.

21. 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?

22. Distinguish between correlation and regression?

23. You are given the following data.

	X	Y
Arithmetic mean	36	85
Standarddeviation	11	8

Correlation coefficient between X and Y =0.66

1) Find the two regression equations

2) 2) estimate the value of X when Y=75

24. Given a normal distribution with mean=50 and SD =10, Find the value of X that has:

a) 13% of value to its left

b) 14% of value to its right

25. Explain various OR technique

26.   Find the binomial distribution with mean 3 and variance 2

27. FindKarlPearson's coefficient of correlation and probable error:

Year:	2011	2012	2013	2014	2015	2016	2017	2018
Imports:	46	68	72	75	80	70	93	100
Exports:	64	50	39	48	52	46	40	30

28.   Explain the properties of normal curve?

(6x4=24 Marks)

Answer any two questions. Each carries 15 marks.

29. The following data show the number of seeds germinating out of 10 on damp filter for 80 set of seeds. Fit a binomial distribution to the data

X:	0	1	2	3	4	5	6	7	8	9	10
Y:	6	20	28	12	8	6	0	0	0	0	0

30. What is a statistical test? Explain the procedure for testing of hypothesis

31. 1000 students are randomly selected from 10000 students enrolled in a PG programme were classified by age and grade point:

Grade point	Age in years			
	21 and under	22-24	25-27	Over 27
Upto 3.0	320	80	10	200
3.1-3.5	50	15	70	60
3.6-4.0	30	5	20	40

At 5% level of significance test the hypothesis that age and grade points are independent.

(2x15=30 Marks)