Bcom(PA) DEGREE EXAMINATION,APRIL 2020
I Year II Semester
Business Statistics

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. State any two types of Classification.
2. Find the range and coefficient of range for the following data:
   35,40,52,29,51,46,27,30,30,23.
3. Define Skewness.
4. State the properties of correlation.
5. Write the Formula for Rank correlation.
6. Write the two Regression lines.
7. Define Index number.
8. What are the types of Splicing?
9. A perfect die is tossed twice. Find the probability of getting a total of 9.
10. Define Poisson distribution.
11. Define Sampling.
12. What are the types of Hypothesis?

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. The AM calculated from the following frequency distribution is known to be 67.5 inches. Find the missing frequency,

Height in inches	60-62	63-65	66-68	69-71	72-74
Frequency	15	54	-	81	24

14. In a distribution, mean = 65, median = 70, and coefficient of skewness is -0.6. Find (i) Mode (ii) Co-efficient of variation.
15. Explain Scatter diagram.
16. The Scores of 8 students in an examination in X and Y are given below:

X	70	48	58	55	54	50	60	52
Y	62	47	53	60	55	68	51	48

Find rank correlation coefficient.

17. Calculate Fisher's index number for the following data:

	1993		1994	
Commodity	Price	Quantity	Price	Quantity
A	8	6	12	5
B	10	7	11	6
C	7	8	8	5

18. Determine the binomial distribution for which the mean is 4 and variance is 3. Also find P(X=15).

19. What is Analysis of Variance? State the objectives of performing analysis of variance.

Section C $(2 \times 15 = 30)$ Marks

Answer any **TWO** questions

20. Calculate mean, median and standard deviation from the following data:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	5	12	30	45	50	37	21

21. You are given below the following information about advertising and sales:

	Advertising expenditure(x)(Rs.lakhs)	Sales(Y) (Rs.lakhs)
Mean	10	90
Standard Deviation	3	12

Correlation coefficient 0.8

(i) Obtain the two regression lines.
(ii) Find the likely sales when advertisement expenditure is Rs.15 lakhs.
(iii) What should be advertisement expenditure if the company wants to attain sales target of Rs.120 lakhs?

22. A bag contains 4 white and 6 black balls.Two balls are drawn at random, what is the probability that (i) Both are white (ii) Both are black (iii) One white and One black.

23. Explain briefly about methods of Sampling.

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