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BBA (Sem. - 3rd)
BUSINESS STATISTICS
SUBJECT CODE : BB - 304
Paper ID : [C0216]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.

Section - A

Q1)

(10 × 2 = 20)

- a) What are the advantages of graphical representation of statistical data?
- b) State the empirical relation between mean, median and mode.
- c) Define coefficient of variation.
- d) Differentiate between correlation and regression.
- e) What do you mean by Bayes' theorem?
- f) What are the characteristics of normal distribution?
- g) Distinguish between linear and non linear correlation.
- h) What do understand by Binomial distribution? What are its features?
- i) Why is the measurement of seasonal variation called problem of averages.
- j) Why Standard deviation is considered to be the best in comparison with other measures.

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Section - B

(4 × 10 = 40)

Q2) Represent the following data by means of a histogram

Weekly wages:	10-15	15-20	20-25	25-30	30-45	40-60	60-80
No. of Workers:	7	19	27	15	12	12	8

Q3) Find the average or mean deviation from the median for the following distribution.

Marks less than:	80	70	60	50	40	30	20	10
No. of students:	100	90	80	60	32	20	13	5

Q4) (a) A problem in statistics is given to three students A, B and C, whose chances of solving it are $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{5}$ respectively. Find the probability that problem will be solved.

(b) State and prove multiplicative law of probability.

Q5) Calculate the coefficient of correlation for the ages of husbands and wives:

Age of Husband (years):	23	27	28	29	30	31	33	35	36	39
Age of Wife (years):	18	22	23	24	25	26	28	29	30	32

Q6) Given the following information:

(a) Compute price index and quantity Index numbers for the year 2000 with 1995 as base year, using

(i) Laspeyre's Method

(ii) Paasche's Method

(b) Also compute Fisher's price and quantity index numbers.

Commodity	Quantity		Value(Rs.)	
	1995	2000	1995	2000
A	100	150	500	900
B	80	100	320	500
C	60	72	150	360
D	30	33	360	297

Q7) Discuss briefly the importance of time series analysis in business and economics. What are the components of Time series? Give an example of each component.

