Faculty of Business Management

BBA I-Year, CBCS-II Semester Regular Examinations –January, 2021

PAPER: BUSINESS STATISTICS

Time: 2 Hours   Max Marks: 80

I. Answer any 5 from the following questions   (5x16=80 Marks)

1. Define Statistics? Discuss the utility of Statistics to the States, Economists and the Industrialists.

2. What is Statistical table? Explain various types of tabulation with examples.

3. What do you understand by Measures of Central Tendency? Discuss the standard measures of Central Tendency with its applications.

4. An analysis of the monthly wages paid to workers in two firms A and B, belonging to the same industry, gives the following results:

	Firm - A	Firm-B
Number of Wages earners	550	650
Average monthly wages (in '00 Rs)	50	45
Standard deviation of the distribution of Wages	$\sqrt{90}$	$\sqrt{120}$

Answer the following questions with proper justifications:

   i.   Which firm A or B pays larger amount as monthly wages?

   ii.   In which firm A or B, is there greater variability in individual wages?

   iii.   What are the measures of Average monthly wages , Standard deviation in the distribution of individual wages of all workers in the two firms taken together?

5. Explain how Index numbers are used to measure the purchasing power of money?Explain what do you understand by deflating of Index numbers with example

6. Mean monthly wages (X) and cost of living index numbers (Y) for the year 2001 to 2006 are given below:

Year	2001	2002	2003	2004	2005	2006
Rs. X	360	400	480	520	550	590
Y	100	104	115	160	210	260

In which year the real income was   (1) the highest   (2) the lowest

7. What is sampling? Explain various methods of Probability Sampling with examples.

8. A doctor is to visit a patient. From the past experience, it is known that the

Probabilities that he will come by Car, Taxi, Scooter or by other means of transport are 0.3, 0.2, 0.1 and 0.4 respectively. The probabilities that he will be late are ¼, 1/3 and 1/12, if he comes by Car, Taxi, Scooter respectively. But, if he comes by other means of transport, then he will not be late. When he arrives, he is late. What is the probability that he comes by Car?

9. Define Correlation. Explain various types of Correlation with suitable examples. State the application of Correlation in business.

10. The sales of a company in Lakhs of rupees for the years 2004-2011 are given

below :

Year	2004	2005	2006	2007	2008	2009	2010	2011
Sales(in Lakhs)	550	560	555	585	540	525	545	585

(i) Find the linear trend equation.

(ii) Estimate the sales for the year 2003.

(iii) Find the slope of the Straight line trend.

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Faculty of Business Management

Code:2402/BL/19

BBA I-Year, CBCS-II Semester Backlog Examinations –Jan, 2023

PAPER: Business Statistics

Time: 3 Hours

Max Marks: 80

Section-A

I. Answer any *five* of the following questions   (5x4=20 Marks)

1. What are the five main forms of statistical methods?
2. Briefly describe Central Tendency.
3. Differentiate between simple index number and weighted index number.
4. State and explain conditional probability with an example.
5. Explain Karl Pearson's coefficient of correlation.
6. List out advantages of skewness.
7. How measure of central tendency and dispersion are related?
8. What is the need for data? Briefly mention the different methods of data classification.

Section-B

II. Answer the following questions   (5x12=60 Marks)

9. (a) Explain graphical representation in detail. Show different types of graphs.

(OR)

(b) What is Measurement? Explain levels of measurement in statistics with examples.

10.(a) The following table shows the frequency distribution of the weights of 25 children in a community.

Weight(kg)	14	15	16	17	18	19	20
No. of Children	2	5	8	3	4	1	2

Find the Mean and mode of the distribution

(OR)

(b) The table below shows the distribution of the ages, in year, of members of a local club.

Age (Years)	21-25	26-30	31-35	36-40	41-45	46-50	51-55
Number of people	1	14	2	30	20	10	3

Find the Median and standard deviation of the distribution.

11. (a) Using the following data, test whether Fisher's ideal formula satisfies time and factor reversal test.

Commodity	2000		20020	
	Price	Quantity	Price	Quantity
A	2	6	4	8
B	5	5	6	10
C	4	10	5	14

D	2	13	2	19

(OR)

(b) Distinguish between fixed base and chain base index numbers

12. (a) Write short notes of the following

    a) Sampling Methods   b) Principles of Sampling

(OR)

(b) Fit the Poisson distribution for following data.

Number of Errors(x)	0	1	2	3	4	5	6
Number of accounts (f)	35	40	19	2	0	2	2

13. (a) Twelve salesmen are ranked for efficiency and the length of service. Find the Rank Correlation coefficient.

Efficiency (R1)	Length of Service (R2)
1	2
2	1
3	5
4	3
5	9
6	7
7	7
8	6
9	4
10	10

(OR)

(b) From the following data obtain the line of regression of Y on X and find the sales when Advertisement expenditure goes up to Rs. 120 Lakhs:

Add Exp. in (X)	60	65	70	72	75	85	90
Sales in lakhs (Y)	80	75	70	85	90	100	110

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BBA-I-Year, CBCS-II Semester Regular Examinations –June, 2023

PAPER: Business Statistics

Time: 3 Hours   Max Marks: 80

Section-A

I. Answer any Five of the Following Questions   (5×4=20 Marks)
1. Tabulation
2. Measure of Tendency
3. Consumer price index
4. Standard Error
5. Models of Time series
6. Pearson's coefficient correlation
7. Multiplication theorem
8. Relative measures of SK

Section-B

II. Answer he following questions   (12×5=60 Marks)
9. (a) Define the term 'Statistics'. Explain the Scope and importance of Statistics in detail.

(OR)

(b) Explain the methods of Data classification in detail.

10.(a) Explain the relationship between Mean, Median and Mode with the help of examples.

(OR)

(b) Calculate the mean from the following data and interpret the result.

Monthly expenditure	No of Families	Monthly expenditure	No of Families
100-199	24	700-799	39
200-299	38	800-899	26
300-399	45	900-999	22
400-499	56	1000-1099	20
500-599	52	1100-1199	18
600-699	48	1200-1299	12

11.(a) Explain the Time reversal, Factor reversal and Circular tests in detail.

(OR)

(b) Define the term 'Index Number'. Explain construction of weighted and un weighted Index number.

12.(a) Explain the probability and non probability sampling methods in detail.

(OR)

(b) Define the term 'Sampling'. Explain the principles of sampling in detail.

13.(a) Explain the application of 'Correlation' and 'Regression' with the help of suitable examples.

(OR)

(b) Find the two regression equation from the following data—

X	1	2	3	4	5
Y	2	3	4	5	6

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