DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2024

BUSINESS STATISTICS

[Maximum Marks: **75**]   [Time: **3** Hours]

PART-A

I. Answer *'all'* the following questions in one word or one sentence. Each question carries *'one'* mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	Under................. method of collecting data,there is a face to face contact with the person from whom information is collected.	M1.04	R
2.	When data are observed over a period of time the type of classification is known as................... a) Qualitative classification b) Chronological classification c) Geological classification d) Quantitative classification	M1.08	R
3.	State the equation for finding Weighted Mean.	M2.05	R
4.	..........................is the middle most item in a given series.	M2.04	R
5.	If the given variable under study is moving in same direction then such variables are having a ....correlation.	M3.03	R
6.	………….. is a graphic technique to show the functional relationship between the dependent and independent variable.	M3.06	R
7.	If the two variables are having a perfect positive correlation then correlation coefficient will have a value of..............................	M3.04	R
8.	State Fisher's Formula to calculate Price Index Number.	M4.03	R
9.	.... number is the changes in the volume of goods produced or consumed during a given time period.	M4.02	R

PART-B

II. Answer any *'eight'* questions from the following. Each question carries *'three'* marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	List out the points to be considered while making tabulation.	M1.09	R
2.	State the limitations of Statistics.	M1.03	R
3.	Outline the importance of Measures of Central Tendency.	M2.01	U
4.	Describe various advantages of Arithmetic Mean.	M2.03	U
5.	Briefly explain degrees of correlation.	M3.06	U

6.	Give Regression equation of' X on Y.	M3.06	R
7.	From the following compute coefficient of correlation N = 10 Sum of X= 35 Sum of Y=28 Sum of the products of X and Y = 168 Sum of the squares of X = 203 Sum of squares of Y = 140	M3.04	A
8.	List out importance of statistics in different field.	M1.02	R
9.	Calculate Median from the following. 13 17 18 24 27 21 25 31 29 34	M2.04	A
10.	From the following calculate Price Index using Paasche' s method considering 1994 as base period.	M4.03	A

COMMODITY	1994		2004	
	PRICE	QUANTITY	PRICE	QUANTITY
A	8	10	10	9
B	10	12	15	12
C	12	8	18	7
D	15	6	16	8

PART-C
Answer *'all'* questions from the following. Each question carries *'seven'* marks.
(6 x 7 = 42 Marks)
Module Outcome Cognitive level

III.	Define Classification. Outline various objectives of classification.	M1.07	U
	OR		
IV.	Explain the meaning of Individual, discrete and continuous series with suitable example.	M1.06	U
V.	Calculate Standard Deviation using short cut method.	M2.07	U

Marks	10	12	14	16	18	20	22
No.of students	3	5	9	16	8	7	2

	OR		
VI.	List out the steps involved in calculating Median in continuous series.	M2.04	R
VII.	Describe steps involved in constructing Index Number.	M4.01	U
	OR		
VIII.	Explain various methods of constructing Index Numbers.	M4.02	U

IX.	Define Regression. Explain various uses of Regression.	M3.05	U
	OR		
X.	Akash conducted a study to find the relationship between marks scored by students in economics and statistics. By using Karl Pearson's Coefficient of correlation, help him to express the relationship.	M3.04	A

Roll no	1	2	3	4	5	6	7	8	9
Marks in economics	18	16	14	12	10	8	6	4	2
Marks in statistics	30	32	28	26	22	24	20	16	18

XI.	Calculate Mean Deviation from the following data.	M2.08	U

Size	Frequency	Size	Frequency
2	2	10	3
4	2	12	2
6	4	14	1
8	5	16	1

OR

XII.	Explain Combined Mean and Weighted Arithmetic Mean.	M2.05	U
XIII.	Define Index numbers. What are the Uses of Index Numbers?	M4.01	R
	OR		
XIV.	Compute Cost of living Index from the following using Family Budget Method taking 2005 as Base Year:	M4.06	A

Items	Quantity	Price(2015)	Price(2005)
Food	40	8	4
Health	10	32	20
Entertainment	20	18	12
Others	30	10	8

****