

B.Sc. - II (Information Technology) (CBCS Pattern) Semester-III
UBITT306 - Paper-VI - Statistical and Numerical Methods

P. Pages : 2

Time : Three Hours



GUG/W/24/10932

Max. Marks : 40

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagram and use supporting data wherever necessary.
 3. Avoid vague answer and write specific answer related to question.

Either:

1. a) Explain Primary and Secondary in detail. 4
- b) Calculate Mean, Median & Mode. 4

Sr. No.	1	2	3	4	5	6	7	8	9
Marks	25	15	23	40	27	25	23	25	20

OR

- c) Calculate Harmonic mean (n)? 4

Size	9	13	14	15	16	17	18
No. of Students	2	4	5	7	10	9	3

- d) Calculate Q_1 & Q_3 . 4

Marks	5	10	15	20	25	30	35	40
No. of Students	6	5	15	10	5	4	3	2

Either:

2. a) Calculate Range & its co-efficient? 4

Family	A	B	C	D	E	F	G	H	I	J
Income (Rs.)	30	70	10	70	505	8	42	250	40	35

- b) Calculate Bowley's coefficient of skewness. 4

Income (Rs.)	10	30	20	40	60	50	70
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OR

- c) Calculate Standard-Deviation and its coefficient. 4

Income (Rs.)	54	62	63	65	68	71	73	78	82	84
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- d) Calculate Karl Pearson coefficient of skewness. 4

Marks	10	20	20	30	40	50	60
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Either:

3. a) Calculate Karl Pearson coefficient of correlation. 4

Capital	10	20	30	40	50	60	70	80	90	100
Profit	2	4	8	5	10	15	14	20	22	30

- b) From the data find Laspeyres Index no. 4

$$\Sigma p_0 q_0 = 184$$

$$\Sigma p_1 q_1 = 930$$

OR

- c) From data given below calculate coefficient & its probable error. 4

x	20	24	28	32	36
y	14	18	22	26	30

- d) Construct Fisher Index No. 4

$$\Sigma p_1 q_0 = 504.2$$

$$\Sigma p_0 q_0 = 1025.9$$

$$\Sigma p_1 q_1 = 450.1$$

$$\Sigma p_0 q_1 = 916.3$$

Either:

4. a) Differentiate between Absolute error & Relative error? 4

- b) Explain how to minimizing the total error? 4

OR

- c) Write note on: 4

a) Data error

b) Conversion error

- d) What are the pitfall and precaution of error? 4

5. Solve all the question:

a) Types of Average, Explain? 2

b) Define Skewness? 2

c) Uses of Index Number? 2

d) Significance of Error? 2
