

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

P. Pages : 2

Time : Three Hours



GUG/S/23/10932

Max. Marks : 40

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagrams wherever necessary.
 3. Avoid vague answers and write answers relevant and specific to questions only.

Either:

1. a) What is Tabulation? Explain advantages and disadvantages. 4
- b) Calculate Upper and Lower Quartile. 4
Income in Rs. : 30 70 10 70 505 8 43 250 40 35

OR

- c) Marks obtain by 50 students in statistics in a class test are given below. Find Mean, Median and Mode. 4

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

- d) Explain different Methods of Collection of Data? 4

Either:

2. a) What is mean by Dispersion? What are the methods of computing Dispersion? 4
- b) Monthly earning in Rs.: 239 250 251 251 252 257 258 260 262 273 275 4
Calculate Quartile-Deviation and it's Coefficient.

OR

- c) Calculate Coefficient of Skewness. 4
Marks : 10 20 20 30 40 50 60

- d) Calculate Standard-Deviation and its Coefficient by Direct Method. 4
Income in Rs. : 54 62 63 65 68 71 73 78 82 84

Either:

3. a) Find out index number by 1)Fisher Method 2) Marshall and Edgeworth method. 4

Commodity	Quantity		Prinice	
	2010	2011	2010	2011
A	16	20	50	16
B	5	8	10	15
C	4	6	20	25

- b) Write a short note on Regression. 4

OR

- c) Define Index Number. Explain its Limitations. 4
- d) From the data given below. Estimate most likely height of father whose son height is 70 inches. 4

Particulars	Mean Height	Standard Deviation
Father	67 inches	3.5
Son	65 inches	2.5

Either:

4. a) Explain Error Estimation in detail. 4
- b) Write a short note on: 4
- i) Absolute Error
- ii) Relative Error

OR

- c) Find a Truncation error of following function for $X=1/5$ when we use 4
- i) First 3 terms
- ii) First 4 terms
- iii) First 5 terms
- From the following sequence
- $$e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \frac{x^5}{5!} + \frac{x^6}{6!} + \dots$$
- d) What is Round off Error and Truncation Error? Explain in brief. 4

5. Attempt all the questions.

- a) Explain Characteristics of Statistics. 2
- b) Calculate Range and its Coefficient from the following 2
- | Family | A | B | C | D | E | F | G | H | I | J |
|---------------|----|----|----|----|-----|---|----|-----|----|----|
| Income in Rs. | 30 | 70 | 10 | 70 | 505 | 8 | 42 | 250 | 40 | 35 |
- c) Write a short note on Laspeyre's Method? 2
- d) Write a short note on Data Error and Chopping. 2
