

Note: 1. All Questions are compulsory.

2. Figures to right indicate full marks

Q1

A) Fill in the blanks

5 Marks

1. No. of members in a family is an example of _____ distribution

- a) Discrete b) Continuous c) Both A and B
d) None of the above

2. The following diagram is used to present more than one variable

- a) Multiple Bar diagram b) Sub divided bar diagram c) both A and B
d) None of the above

3. Which of the following cannot be determined graphically

- a) Mean b) Mode c) Median d) None of the above

4. Which of the following is not a measure of central tendency

- a) Mean b) Mode c) Median d) Standard Deviation

5. The class mark of a class interval is _____

- a) Lower limit + Upper limit b) Upper limit - lower limit
c) $\frac{1}{2}$ (Lower limit + upper limit) d) $\frac{1}{4}$ (Upper limit + upper limit)

5 Marks

B) Match the following

A

1. Mean
2. Class mark
3. Graphs
4. Real income
5. Bonus

B

- Profit given on policy
Deflated income
Pictorial Representation
 $\frac{1}{2}$ (lower limit + upper limit)
Measure of central tendency

C) True or False

1. Profit given on policy is bonus
2. Termination of policy if the premium is not paid even after grace period is correct
3. Standard Deviation is a measure of Central Tendency
4. The ratio of birth to death in a year is called vital index
5. If the class intervals are of unequal width we find frequency to draw the histogram

Q2

A) From the following data find class width, class mark, relative frequency and percentage frequency

5 Marks

Class Interval	50-60	60-70	70-80	80-90	90-100
Frequency	7	12	15	8	4

B) Draw histogram and frequency polygon on the same graph

7 Marks

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	10	12	15	25	10	8

OR

C) Compute the Median for the following frequency distribution. Also calculate Q_1 , Q_3 and P 72

15 Marks

Class Interval	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency	4	12	14	16	20	16	10	8

Q3

A) Find the product moment coefficient of correlation between X and Y

8 Marks

X	14	16	18	10	15	12	13
Y	12	15	12	14	13	13	12

B) Calculate the regression coefficient for the following information 7 Marks

$$\sum x = 50, \quad \sum y = 30, \quad \sum xy = 1000, \quad N=10$$

OR

C) Find the lines of regressions of x on y and y on x for the following data 15 Marks

X	Y
15	10
17	11
19	13
22	14
25	16
26	17

Q4

A) From the following table construct index number for the year 2003 by using average of price related method 8 Marks

Item	Price (2001)	Price (2003)
A	140	160
B	120	130
C	100	105
D	75	85

B) Two unbiased dice are thrown. Find the probability that 7 Marks

- Both the dice shows same number
- First dice shows 6
- Total of the numbers on the dice is 8
- Total numbers on the dice 6

OR

C) From the following data calculate (i) Laspeyres (ii) Pansches (iii) Fischers (iv) Dorbish Bowly (v) Marshall Edge worth (vi) Walsch 15 Marks

	Base Year		Current Year	
Commodity	Price	Quantity	Price	Quantity

A	6	30	15	40
B	5	40	10	55
C	10	25	12	20
D	4	15	3	30
E	2	30	8	28

Q5

A) What is vital statistics, its uses, method of collecting it and also explain measurement of population. 15 Marks

OR

15 Marks

B) Short Notes (Any 3)

1. Types of Index numbers
2. Special Index Numbers used in practice
3. Statistical methods
4. Limitations of statistics
5. Characteristics of statistics