Class: F.Y BFM DATE: 29.09.2015 Total Marks: 75

Date: Timing: 8.00 am to 10.30 am Time: 2 ½ Hours

SUB: BASIC STATISTICS

Note: 1. All Questions are compulsory.

2. Figures to right indicate full marks

Q1.

A) Fill in the blanks 5 Marks

1. Statistical method of data is .....
   a. Collection of data
   b. Numerically expressed
   c. Organization of data
   d. Both a and c
   e. None of the above
2. ..... requires more time.
   a. Primary data
   b. Secondary data
   c. Raw data
   d. None of the above
3. ..... Data is classified according to characteristic like height, weight, income.
   a. Qualitative
   b. Quantitative
   c. Both a and b
   d. None of the above
4. ..... Is a type of graph
   a. Histogram
   b. Geographical base
   c. Both a and b
   d. None of the above
5. Which of the following is not a measure of central tendency

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

B) Match the following 5 Marks

A	B
1. Mean	Profit given on policy
2. Class mark	Deflated income
3. Graphs	Pictorial Representation
4. Real income	½(lower limit + upper limit)
5. Bonus	Measure of central tendency

C) True or false 5 Marks

1. The year selected as a reference period for comparison is called current year
2. If the class intervals are of unequal width we find frequency to draw the histogram
3. No. of members in a family is an example of continuous distribution
4. Standard Deviation is a measure of Central Tendency
5. If the class intervals are of unequal width we find frequency to draw the histogram

Q2.

A) Draw histogram and frequency polygon on the same graph 8 Marks

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

B) Calculate the arithmetic mean for the following frequency table 7 Marks

class interval	Frequency
20-30	8
30-40	26
40-50	30
50-60	20
60-70	16

OR

C) Compute the Median for the following frequency distribution. Also calculate Q1, Q3 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) Calculate the range and co-efficient of range for the following data giving the sales of a shop for a week

Sales in Rs. 160 , 130, 125, 127, 143, 150, 155

8 Marks

B) Calculate coefficient of Rank Correlation from the following data

7 Marks

No. Of Hours	No. of Minutes
2	9
1.5	9.25
2.5	8.3
1.75	8.1
2.75	8.2
3	7
1.6	8.8

OR

C) Find trend values using 3 yearly moving averages

15 Marks

Year	197	1972	1973	1974	1975	1976	1977	1978	1979
Bank Clearance	60	61	63	62	62	64	63	64	65

Q4.

A) From a group of 10 boys and 6 girls a committee of 3 boys and 2 girls is to be selected. In how many ways it can be done?

8 Marks

B) A box contains 20 tickets numbered from 1 to 20. A ticket is drawn randomly from the box. Find the probability that the number on the ticket is

7 Marks

i) Divisible by 5

ii) Not divisible by 2

iii) Divisible by 3 and 4

iv) Divisible by 3 or 4

OR

C) Construct index number using following method (i) Laspeyres (ii) Paasches (iii) Fischers (iv) Dorbish Bowly (v) Marshall Edgeworth

15 Marks

	Base Year		Current Year	
Commodity	Price	Quantity	Price	Quantity
A	2	3	4	6
B	5	10	6	5
C	4	14	5	10
D	2	19	2	13

Q5

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

15 Marks

OR

B) Short Notes (Any 3)

15 Marks

1. Types of Index numbers
2. Statistical methods
3. Limitations of statistics
4. Characteristics of statistics
5. Elements common to decision theory problems