B.V. Patel Institute of Business Management, Computer & Information Technology
UkaTarsadia University
1ˢᵗInternal Examination, BBA 1ˢᵗSemester
030030122-CC2 Business statistics.

Marks: 50

Date: 26/08/2017   **Time:2hr**

Q-1 Answer the following. (Any Eight)   [16]

1. Find mean and median of first 10 Natural numbers.

2. Define: mode and write the formula for finding mode of grouped data?

3. What is the relationship between mean, median and mode? If median=17.5 and mean=20.8 then find mode.

4. Write any two merits and demerits of median.

5. If $\sum|D| = 89$ for the given 12 observations then find its mean deviation.

6. Find the standard deviation for 3,3,3,3,3,3,3.

7. What is the formula for coefficient of variation? Find the coefficient of variance if standard deviation and mean are respectively 2.3 and 15.

8. Define correlation coefficient. Give the value of correlation coefficient lies between.

9. Find r from the following data:$N = 10; \sum(X - \bar{X})(Y - \bar{Y}) = 120, \sigma X = 4, \sigma Y = 3$.

Q-2 Answer the following. (Any Two)   [20]

1. The following table gives the marks obtained by 50 students in statistics. Find mean of the data by (1) direct method, (2) deviation method.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No.of students	5	10	25	30	20	10

2. Two brand of phone are tested with following result

LIFE	BRAND OF PHONE	
10-20	1	0
20-30	22	24
30-40	10	76
40-50	9	0
50-60	3	0

   a) Which brand of phone has greater average life?
   b) Compare the variability and state which brand of phone would you use?

3. The following table give the distribution of item of production and also the relatively defective item among them according to size group, find correlation coefficient by Karl Pearson's method between size and defective.

Size group	2-4	4-6	6-8	8-10	10-12	12-14
No.of defective	60	50	50	38	45	75
No. of item	300	500	400	100	200	150

Q-3 Answer the following in detail. (Any Two) [14]

1. Calculate standard deviation from given data using assumed mean method

X:	3.5	4.5	5.5	6.5	7.5	8.5	9.5
Y:	3	8	10	25	36	41	20

2. An incomplete distribution is given below:

Variable:	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency:	10	20	f_1	40	f_2	25	15

Given median 35 and find out missing frequency. Also given total frequency is 170

3. Find the coefficient of correlation by Karl Pearson's method between x and y and interpret its value.

X:	150	160	162	165	167	164	163	160	165	154
Y:	157	159	160	167	166	164	162	165	165	155