

CHARUTAR VIDYA MANDAL'S
SECOM
Vallabh Vidyanagar
Assignment 2015-16 [SEM-III]

Subject: Statistics for Management-I
Class: BBA (G) SEM-III

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Q. 1.

a) Obtain mean deviation from mean and standard deviation for the following data.

| | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| Age in year | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 |
| No. of Members | 3 | 61 | 132 | 153 | 140 | 51 | 2 |

b) In the frequency distribution of 100 families given below. The number of families corresponding to expenditure groups 20-40 and 60-80 are missing from the table. However, the mean is known to be 50. Find the missing frequencies.

| | | | | | |
|-----------------|------|-------|-------|-------|--------|
| Expenditure: | 0-20 | 20-40 | 40-60 | 60-80 | 80-100 |
| No. of families | 14 | f_1 | 27 | f_2 | 15 |

Q. 2. The production of a factory for a product was inspected for 10 consecutive days by taking a sample of 5 observations. Following data give samples mean and range. Draw \bar{X} and **R** chart and write your conclusion. [$n = 5, A_2 = 0.58, D_3 = 0, D_4 = 2.11$]

| | | | | | | | | | | |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Mean | 40 | 42 | 41 | 40 | 42 | 43 | 40 | 40 | 42 | 45 |
| Range | 3 | 2 | 5 | 2 | 1 | 4 | 3 | 2 | 5 | 4 |