PCC2E10 - Statistical Analysis Using MS Excel (Optional)

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Notes :   1.   All questions are compulsory.
          2.   Each questions carry **16** marks.

1.   Out of the total number of 2,807 women, who were interviewed for employment in a textile   **16**
         factory, 912 were from textile areas and the rest from non-textile areas. Among the married
         women, who belonged to textile areas 347 were having some work experience and 173 did
         not have work, while for non-textile areas the corresponding figures were 199 and 670
         respectively. The total number of women having no experience was 1841 of whom 311
         resided in textile areas. Of the total number of women, 1418 were unmarried and of these
         the number of women having experience in the textile and non-textile areas was 254 and
         166 respectively. Classify and tabulate the given information.

OR

A trip organized by a college, there were 100 persons. The average cost works out to
Rs.15.60 per head. There were 80 students each of whom paid Rs. 16. Members of the
teaching staff were charged at a higher rate. The number of servants was 6 (all males) and
they were not charged. The number of ladies was 20% of the total of which two were lady
staff members. Classify and tabulate the given information.

2.   An average daily wage of all the 90 workers in a factory is Rs. 60. The average daily   **16**
         wages of female workers is Rs. 45. Calculate an average daily wage of male workers if
         one third workers are male. Calculate through combined mean.

OR

A Charitable organisation decided to give old age pension to people over sixty years of
age. The scales of pension were fixed as follows:

Age Group (Years)	Amount of Pension (Rs.)
60-65	20 per month
65-70	25 per month
70-75	30 per month
75-80	35 per month
80-85	40 per month

The ages of 25 Workers who secured the pension right are given as
74, 62, 85, 72, 61, 83, 72, 81, 64, 71, 63, 61, 60, 67, 74, 64, 79, 73, 75, 76, 69, 68, 78,
66, 67 Required:
Calculate the monthly average pension payable per pension and the standard deviation.

3. From the following data calculate arithmetic Mean **16**

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	10	20	30	50	40	30

OR

From the following data calculate median

Marks	1-10	11-20	21-30	31-40	41-50	51-60
No. of Students	10	20	30	50	40	30

4. Philips company claims that the length of life of its electric bulb is 2000 hours with **16** standard deviation of 30 hours. A random sample of 25 showed an average life of 1940 hours with a standard deviation of 25 hours. At 5 % level of significance can we conclude that the sample has come from a population with mean of 2000 hours?

OR

An automatic machine was designed to pack exactly 2.0 kg of Vanaspati. A sample of 100 tins was examined to test the machine. The average weight was found to be 1.94 kg with standard deviation 0.10 kg. is the machine working properly?

5. Short note. **16**

i) Importance of statistics.

ii) Type of data.

iii) Characteristics of Questionnaire.

iv) Meaning of Hypothesis and explain simple and composite hypothesis.

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