M.Com. (New CBCS Pattern) Semester - II

PCC2E10 - Optional Subject - Statistical Analysis Using MS Excel

P. Pages : 2 **GUG/S/23/13688**

Time : Three Hours * 2 4 2 2 * Max. Marks : 80

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

1. In 2002 out of a total of 4,000 workers in a factory 3,300 were members of a trade union. The number of women workers was 500 out of which 400 did not belong to the union. In 2001 the number of workers in the union was 3,450 of which 3,200 were men. The number of workers not belonging to the union was 760 of which 330 were women. Present data in a suitable tabular form. **16**

OR

In 2002 out of a total of 1,750 workers of a factory, 1,200 were members of a trade union. The number of women employed was 200 of which 175 did not belong to a trade union. In 2004 the number of union workers increased to 1,580 of which 1,290 were men. On the other hand, the number of non-union workers fell down to 280, of which 180 were men. In 2006 there were 1,800 employees who belong to a trade union and 50 who did not belong to a trade union. Of all the employees in 2004, 300 were women of whom only 8 did not belong to a trade union. Present the above data in suitable form.

2. An average daily wage of 10 workers in a factory 'A' is Rs. 30 and an average daily wage of 20 workers in a factory 'B' is Rs. 15. Find the average daily wages of all workers of both the factories. **16**

OR

An average daily wage of all the 90 workers in a factory is Rs. 60. An average daily wage of female workers is Rs. 45. Calculate an average daily wage of male workers if one-third workers are male.

3. From the following data, calculate median. **16**

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

OR

A charitable organization decided to give old age pensions 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, 84, 72, 61, 83, 72, 81, 64, 71, 63, 61, 60, 67, 74, 64, 79, 73, 75, 76, 69, 68, 78, 66, 67.

i) Calculate the monthly average pension payable per pension and the standard deviation.

4. 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? **16**

OR

The record for the last several years of applicants for admission into engineering colleges for a test showed that their mean score was 115. An administrator is interested in knowing whether the caliber of the recent applicants has changed. For the purpose of testing this hypothesis the score of the last 100 students is obtained from the admission office. The mean for this turned out to be 118, and standard deviation 30, which may also be assumed for the population as a whole. Use 5% significance level.

5. Short note (4 marks each). **16**

a) Importance of statistics.

b) Type of data

c) Importance of Excel in Statistics.

d) Hypothesis.

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