



**DOON UNIVERSITY, DEHRADUN**

**Semester Mid-term Examination, First Semester, 2014**

**School of social science**

**M.A. (Economics) 1<sup>st</sup> Sem**

**Course: SSE-512: statistics 1<sup>st</sup>**

*Time Allowed: 1 Hours*

*Maximum Marks: 30*

*Note: Attempt All Questions from Sections A,B,C.*

**SECTION: A (Short Answer Type Questions/ to be answered in about 25/75 words.  
Attempt any three Questions. (2\*3=6marks)**

1. What are the types of statistics?
2. Differentiate the methods of measuring central tendency.
3. The mean of 25 observations was found to be 78.4. But later on it was found the 96 was misread as 69. Find the correct mean.
4. Brief about the relationship between arithmetic mean, geometric mean and harmonic mean and also find relation between mean median and mode.

**SECTION: B (Short Answer Type Questions to be answered in about 100/250 words.  
Attempt any three questions. (4\*3=12 marks)**

1. Calculate the value of median and two quartiles of data given below.

Income	1	1-2	2-3	3-5	5-10	10-25	25-50	50-100	100-1000
(000)									
No of person	13	90	81	117	66	27	6	2	2

2. The mean and the S.D. of the marks obtained by two groups of the students, consisting of 50 each are given below, calculate the mean and S.D. of the marks obtained by all the 100 students.

group	mean	S.D.
1	60	8
2	55	7

3. The probability that A can solve the problem is  $\frac{4}{5}$ , B can solve it is  $\frac{2}{3}$  and for C is  $\frac{3}{7}$ . If all of them try independently. Find the probability that the problem will be solved.
4. What you understand by questionnaire? Discuss the types of questionnaires

**SECTION : C (Long Answer Type Questions to be answered in about 750 words.**

1. A. Discuss in detail the importance of statistics with the special reference to business and industries. (2\*6=12 marks)  
B. What are the various sources of the data collection?  
Or

In a factory which manufactures bolt. Machines A, B and C manufactures respectively 25%, 35% and 40% of the bolt. Of their output 5, 4 and 2 percent respectively are defective. A bolt is drawn at random from the product and is found to be defective. What is the probability that it is manufactured by

- I. Machine A
- II. Machine B
- III. Machine C
- IV. Machine B or C. (12 marks)