Bachelor's Degree Programme
(BDP)

ASSIGNMENT

Course Code: EEC-13
Title of Course: Elementary Statistical Methods and Survey Techniques

School of Social Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110 068

Dear Student,

As explained in the Programme Guide for BDP, you will have to do one assignment for this elective course in Economics (EEC -13). This is a Tutor Marked Assignment (TMA) and carries 100 marks.

It is important that you write answers to all the questions in your own words. The TMA is designed to enable you to answer different categories of questions. Here evaluation is made keeping in view your ability to present your answer in a systematic, precise, and coherent manner.

The assignment is divided into three sections. Remember that all questions are compulsory. Section A comprises two long answer questions of 20 marks each. Section B comprises four medium answer questions of 12 marks each while in Section C you have to answer two questions of 6 marks each.

Submission

Completed assignments should be submitted to the **Coordinator of your Study Centre** by:

For students appearing in June 2021 Term End Exam: **31.3.2021**
For students appearing in December 2021 Term End Exam: **30.9.2021**

EEC-13: ELEMENTARY STATISTICAL METHODS AND SURVEY TECHNIQUES

Answer all the questions.

A. Long Answer Questions   2 x 20 = 40 marks

1. Distinguish between primary data and secondary data. What are the various methods to collect primary data? Discuss the steps that you would follow to collect primary data through a questionnaire.

2. What is meant by a time series? What are the various components of time series? Why do you need to eliminate seasonality from time series data?

B. Medium Answer Questions   4 x 12= 48 marks

3) What is a standard normal variable? Bring out its important characteristics.

4) A machine produces ball bearings with diameter of 2.5 inches. It is known that the standard deviation of the ball bearings is 0.005 inches. A sample of 100 ball bearings is selected and average diameter is found to 0.498 inches. Determine the 99 per cent confidence interval.

5) Draw the 'less than' and 'more than' ogives from the following data. Determine the median size of the companies.

Profits (Rs. Crore)	No. of Companies
10-20	8
20-30	12
30-40	20
40-50	24
50-60	15
60-70	10
70-80	7
80-90	3
90-100	1

6) What is an index number? What are the properties that a good index number should fulfil?

C. Short Answer Questions   **2 x 6= 12 marks**

7) Distinguish between simple random sampling and stratified random sampling.

8) Write short notes on the following:
   (a) Multi-stage Sampling
   (b) Age Specific Death Rate