BACHELOR OF ARTS
ECONOMICS (HONOURS)

(BAECH)

ASSIGNMENTS 2022-23

For July 2022 and January 2023 Admission Cycles

COURSE CODE: BECC-107

STATISTICAL METHODS FOR ECONOMICS

SCHOOL OF SOCIAL SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-68

Dear Student,

As explained in the Programme Guide, evaluation of a course at IGNOU comprise i) continuous evaluation through assignments, and ii) term-end examination. In the final result, assignments of a course carry 30% weightage while 70% weightage is given to term-end examination. You will have to do three assignments for a six credit course and two assignments for a four credit course. This assignment booklet has assignments for the core course **BECC-107: Statistical Methods for Economics.**

Assignment I has Descriptive Category Questions (DCQs). These are meant for writing essay type answers, with an introduction and a conclusion. These are intended to test your ability to describe your understanding/knowledge about a topic in a systematic, to-the-point and coherent manner.

Assignment II has Middle Category Questions (MCQs). These questions require you to first analyse the topic in terms of arguments and explanations and then write the answers in a concise manner. They are meant to test your ability to distinguish, compare and contrast, and clear understanding of the concepts and processes.

Assignment III has Short Category Questions (SCQs). These questions are meant to improve your skill of recall in brief the relevant/ precise information about various concepts and processes.

Before you attempt the assignments, please read carefully the instructions provided in the Programme Guide. It is important that you write the answers to all the questions in your own words. Your answers should be within the approximate range of the word-limit set for a particular section. Remember that writing answers to assignment questions will improve your writing skill and prepare you for the Term-End Examination.

As mentioned in the Programme Guide, you need to submit all the assignments within the stipulated time for being eligible to appear in the term-end examination. Completed assignments should be submitted to the **Coordinator of your Study Centre** by:

For students of July 2022 cycle: 30.04.2023

For students of January 2023 cycle: 31.10.2023

You must obtain a receipt from the Study Centre for the assignments submitted and retain it. If possible, keep a photocopy/ scanned copy of the assignments submitted by you.

The Study Centre will have to return the assignments to you after they are evaluated. Please insist on this.

We expect you to answer each question as per guidelines for each category questions as mentioned in the assignment. You will find it useful to keep the following points in mind:

1) **Planning:** Read the assignments carefully. Go through the Units on which they are based. Make important points regarding each question and then rearrange them in a logical order.

2) **Organisation:** Be a little selective and analytic before drawing up a rough outline of your answer. Give adequate attention to your introduction and conclusion.

    Make sure that your answer
    a) is logical and coherent;
    b) has clear connections between sentences and paragraphs, and
    c) is written correctly giving adequate consideration to your expression, style and presentation.

3) **Presentation:** Once you are satisfied with your answer, you can write down the final version for submission, writing each answer neatly and underlining the points you wish to emphasize. Make sure that the answer is within the stipulated word limit.

BECC-107 : STATISTICAL METHODS FOR ECONOMICS

Course Code: BECC-107
Assignment Code: ASST/BECC 107/ 2022-23
Total Marks: 100

Assignment I

Answer the following Descriptive Category Questions in about 500 words each. Each question carries 20 marks. Word limit does not apply in the case of numerical questions. $2 \times 20 = 40$

1. (a) Bring out the salient features of normal distribution. What is the need for a standard normal distribution?

    (b) Find out the area under the standard normal curve for each of the following

     (use z-table). Sketch each one of them.

    (i)   between $z = 0$ and $z = -0.78$

    (ii) between $z = -0.62$ and $z = 0$

    (iii) between $z = -0.45$ and $z = 0.87$

    (iv) between $z = 0.5$ and $z = 1.5$

    (v) to the right of $z = -1.33$.

2. Differentiate between seasonal variation and cyclical fluctuations in time series data. Outline the steps of the ratio-to-trend method.

Assignment II

Answer the following Middle Category Questions in about 250 words each. Each question carries 10 marks. Word limit does not apply in the case of numerical questions. $3 \times 10 = 30$

3) Bring out the major properties of binomial distribution. Mention certain important uses of this distribution.

4) a) Define correlation coefficient. What are its properties?

    b) Find out the correlation coefficient from the following data.

X	5	8	10	12	13	15	17	16
Y	8	12	14	10	13	16	14	17

5) Describe the factor reversal test and time reversal test in the context of index number. Does any index number formula satisfy both the above tests?

Assignment III

Answer the following Short Category Questions. Each question carries 15 marks.

$$2 \times 15 = 30$$

7) Write short notes on the following in about 100 words each:

    (a) Contingency table and chi-squared test

    (b) Properties of a good estimator

    (c) Measurement of skewness

8) Differentiate between the following:

    (a) Estimator and estimate

    (b) Type I and Type II errors in hypothesis testing

    (c) Sampling error and non-sampling error