

**BECC-107**

**BACHELOR OF ARTS  
ECONOMICS (HONOURS)**

**(BAECH)**

**ASSIGNMENTS 2021-22**

**For July 2021 and January 2022 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 2021 cycle: 30.04.2022**

**For students of January 2022 cycle: 31.10.2022**

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/ 2021-22  
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) What is a standard normal variable? What are its properties?
  - (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  $z = -0.56$  and  $z = 0$
    - (iii) between  $z = -0.43$  and  $z = 0.78$
    - (iv) between  $z = 0.44$  and  $z = 1.50$
    - (v) to the right of  $z = -1.33$ .
2. Bring out the distinction between sample survey and census. Describe the steps you would follow in collecting data through a sample survey. Prepare a small questionnaire for collection of income and expenditure levels of households.

### 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)
  - a) The probability that Rajesh will score more than 90 marks in class test is 0.75. What is the probability that Rajesh will secure more than 90 marks in three out of four class tests?
  - b) Bring out the major properties of binomial distribution. Mention certain important uses of this distribution.
- 4)
  - a) Fit a straight line ( $Y = a + bX$ ) to the following data. Compare the estimated values of the dependent variable with its actual values.

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

- b) Define correlation coefficient. What are its properties?
- 5) What is a life table? Explain its uses and limitations.

### 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) Construction of consumer price index
  - (b) Age specific birth and death rates
  - (c) Sampling distribution
- 8) Differentiate between the following:
- (a) Stratified random sampling and systematic random sampling
  - (b) Type I and Type II errors in hypothesis testing
  - (c) Statistic and Parameter