

**BACHELOR'S OF ARTS (ECONOMICS HONOURS) PROGRAMME  
(BAECH)**

**ASSIGNMENT 2022-23  
For July 2022 and January 2023 Admission cycle**

**Course Code: BECC-110  
Title of Course: Introductory Econometrics**

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



**Course Code: BECC 110**  
**Course Title: Introductory Econometrics**  
**Programme Code: BAECH**  
**Tutor Marked Assignment (TMA) 2022**

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-110: Introductory Econometrics.

Section I has Long answer questions. 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.

Section II has Medium answer questions. 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.

Section III has Short answer questions. 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. 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 some 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

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.

## BECC-110 INTRODUCTORY ECONOMETRICS

Course Code: BECC-110

Assignment Code: BECC-110/TMA /2022-23

Total Marks: 100

Answer all the questions

**Section I: Long answer questions (word limit - 500 words). Each question carries 20 marks. Word limit does not apply in the case of numerical questions.** **2 × 20 = 40**

1. (a) Distinguish between the Population Regression Function and Sample Regression Function in detail. Use appropriate diagram to substantiate your response. (10)  
(b) What are the assumptions of a classical regression model? (10)
2. (a) Measurement error in variables is a serious problem in econometric studies. Find out the consequences of measurement errors in i) dependent variable and ii) independent variables.

**Section II: Medium answer questions (word limit - 250 words). Each question carries 10 marks. Word limit does not apply in the case of numerical questions.** **3 × 10 = 30**

3. Differentiate between Chi-square distribution and t-distribution.
4. What is an estimator? Explain all the properties of an estimator with reference to BLUE.
5. Two variable regression model could have three functional forms as given below:

$$Y_i = \beta_1 + \beta_2 X_i + u_i$$
$$\ln Y_i = \beta_1 + \beta_2 X_i + u_i$$
$$\ln Y_i = \beta_1 + \beta_2 \ln X_i + u_i$$

How will you decide which is the best model for a given econometric problem?

**Section III: Short answer questions (word limit - 100 words). Each question carries 6 marks. Word limit does not apply in the case of numerical questions.** **5 × 6 = 30**

6. Discuss the remedial measures of multicollinearity.
7. What do we mean by Normal Distribution? Explain with the help of a diagram.
8. There are two types of estimation of parameters: Point Estimation and Interval Estimation. Explain the interval estimation method briefly.
9. What are the three methods of estimation? Discuss.
10. Explain the rejection regions for small samples and large samples.