BACHELOR'S DEGREE PROGRAMME

[B.A.G/BAM/B.Com G/B.Sc G/B.A. (H)/BCA]

ASSIGNMENT 2026-27

For July 2026 and January 2027 Admission cycle

COURSE CODE: BECS-184

DATA ANALYSIS

SCHOOL OF SOCIAL SCIENCES

INDIRAGANDHINATIONALOPENUNIVERSITY

MAIDAN GARHI, NEW DELHI-68

Dear Students,

As we have informed you in the Programme Guide, evaluation at IGNOU consists of two parts: 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 for term-end examination.

You will have to do three Tutor Marked Assignments (TMA) for a six-credit course and two TMAs for a four-credit course. This Assignment booklet has TMAs for the skill enhancement course **BECS- 184 Data Analysis** which is a four-credit course. The booklet therefore has two TMAs whose total marks add up to 100 and carry a weightage of 30%.

Assignment One is intended to test your ability to understand the topic in a systematic, to-the-point and coherent manner.

Assignment Two requires 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, or clear understanding of the concepts and processes.

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

The assignments should be submitted to the Coordinator of your Study Centre as per the following schedule:

1. **By 31st March, 2027 by the students who took admission in the Academic Cycle July, 2025/who are appearing in term end examination in June 2027**
2. **By 30th September, 2027 by the students who took admission in the Academic Cycle January, 2027/who are appearing in term end examination in December 2027**.

You must obtain a receipt from the Study Centre for the assignments submitted and retain it. If possible, keep a xerox copy of the assignments with you.

The Study Centre will have to return the assignments to you after they are evaluated. Please insist on this. The Study Centre has to send the marks to the Student Evaluation Division at IGNOU, New Delhi.

We expect you to answer each question as per guidelines for each category 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 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.

DATA ANALYSIS
Tutor Marked Assignments

Course Code: BECS-184
Assignment Code: Asst /TMA /2026-27
Total Marks: 100

Assignment One

Answer the following questions. Each question carries 20 marks

$2 \times 20 = 40$

1. (a.) Compute and interpret the correlation coefficient for the following data:

X(Height)	12	10	14	11	12	9
Y (Weight)	18	17	23	19	20	15

(b) Explain step by step procedure for testing the significance of correlation coefficient.

2. A study involves testing whether or not the amount of caffeine consumed affected memory. Fifteen volunteers took part in this study. They were given three types of drink (type A,B and C) containing different levels of caffeine (50 mg, 100 mg, and 150 mg, respectively). Volunteers were divided into three groups of five each and were assigned the drink groupwise. They were then given a memory test (In terms of number of words remembered from a list). The results are given in the following table:

Group A (50 mg)	**Group B (100 mg)**	**Group C (150 mg)**
7	11	14
8	14	12
10	14	10
12	12	16
7	10	13

At significance level of 5%, check whether the mean number of words remembered from the list by the participants belonging to the three groups are significantly different.

Assignment Two

Answer the following questions. Each question carries 12 marks.

5 X 12=60

3. a.) What are the conditions when t test, F test or Z test are used?

   b.) A random sample of 100 recorded deaths in India during the past year showed an average life span of 71.8 years with a standard deviation of 8.9 years. Does this seem to indicate that the average life span today is greater than 70 years? Use a 0.05 level of significance.

4. Explain the following:
   a) Non sampling errors
   b) Probability density curve
   c) Snowball sampling techniques
   d) Degrees of freedom

5. What is the difference between census and survey? Explain the various stages involved in planning and organizing the censuses and surveys.

6. What is multivariate analysis? What are the important points to be kept in mind while interpreting the results obtained from multivariate analysis.

7. Differentiate between:

   a) Phenomenology and Ethnography
   b) ANOVA and MANOVA
   c) discrete and continuous variable
   d) Quantitative and Qualitative Research