BGYCT-133

ASSIGNMENT BOOKLET

Bachelor's Degree Programme
(BSCG/BSCM)

CRYSTALLOGARPHY, MINERALOGY AND ECONOMIC GEOLOGY

Valid from 1st January, 2026 to 31st December 2026

It is compulsory to submit assignment prior to filling Examination form

School of Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068

(2026)

Dear Student,

Please read the section on assignments in the Programme Guide for B.Sc. that we sent you after your enrolment. A weightage of 30%, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment is in this booklet, and it consists of two parts, Part A and B. The total marks of all the parts are 100, of which 35% are needed to pass it.

Instructions for Formatting Your Assignments

Before attempting the assignment, please read the following instructions carefully:

1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.: ……
NAME: ……...
ADDRESS: ……
……..
COURSE CODE: …… **COURSE TITLE:** …….
ASSIGNMENT NO.: ……..
STUDY CENTRE: ……..…..……. **DATE:** ……..……

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
4) Your answers should be precise.
5) Solve Part A and Part B of this assignment, and **submit the complete assignment answer sheets containing Parts A and B within the due date.**
6) The assignment answer sheets are to be submitted to your Study Centre within the due date as per the schedule specified by the University. **Answer sheets received after the due date shall not be accepted.**
7) **We strongly suggest keeping a copy of your answer sheets with you for future reference.**
8) This assignment is **valid from 1st January 2026 to 31st December 2026**. If you have failed in this assignment or fail to submit it by December 2026, then you need to get the assignment for the year **2027**, and submit it as per the instructions given in the Programme Guide and/or latest IGNOU guidelines.
9) Last Date for Submission of Assignment:

Admission session	Date of submission	Where to submit
January, 2026	31st March, 2026	Study Centre
July, 2026	30th September, 2026	Study Centre

Please note that last date of submission may be changed by the University. Please check IGNOU website for updated information regarding due date of assignment submission.

10) It is advised to keep with you a photocopy of the assignment(s) submitted by you.
11) **You cannot fill the examination form for this course until you have submitted this assignment.** For any queries regarding, please contact: **meenalmishra@ignou.ac.in**, **bdeshmukh@ignou.ac.in**.

We wish you good luck.

Tutor Marked Assignment

CRYSTALLOGARPHY, MINERALOGY AND ECONOMIC GEOLOGY

Course Code: BGYCT-133
Assignment Code: BGYCT-133/TMA/2026
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it. Write all answers in your own words; do not copy from the course material.

Part A

1. Write short notes on the following:

   a) Measurement of interfacial angle (5)

   b) Structural classification of silicates (5)

2. Describe the physical properties of minerals belonging to feldspar group giving suitable examples. (10)

3. Discuss the crystallographic axes, symmetry elements and forms of normal class of isometric crystal system with the help of neat well labeled diagrams. (10)

4. Explain the three elements of symmetry with the help of well-labelled diagrams giving suitable examples. (10)

5 Discuss the physical properties of minerals depending upon light, atomic structure and state of aggregation giving suitable examples. (10)

Part B

6. Discuss the nature and morphology of ore bodies with the help of neat well labelled diagrams. (10)

7. Write short notes on the following:

   a) Optical properties of muscovite (5)

   b) Ore formation by magmatic concentration (5)

8. Explain the parts and functioning of polarizing microscope with the help of neat well labelled diagrams. (10)

9. Differentiate the following: (10)

   a) Isotropic and anisotropic minerals

   b) Metallic and non-metallic ore minerals

10. Describe in detail the origin, mode of occurrence and geographical distribution of coal in India. (10)