

BGYCT-135

ASSIGNMENT BOOKLET

Bachelor's Degree Programme (BSCM)

PETROLOGY

Valid from 1st January, 2025 to 31st December, 2025

It is compulsory to submit assignment prior to filling Examination form



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

(2025)

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 percent, 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 as per the schedule. Answer sheets received after the due date shall not be accepted.**
- 7) We strongly suggest that you retain a copy of your answer sheets.
- 8) This assignment is **valid from 1st January, 2025 to 31st December, 2025**. If you have failed in this assignment or fail to submit it by **December, 2025**, then you need to get the assignment for the year 2026, and submit it as per the instructions given in the Programme Guide.
- 9) **You cannot fill the examination form for this course** until you have submitted this assignment. For any queries, please contact: kakoligogoi@ignou.ac.in , meenalmishra@ignou.ac.in

We wish you good luck.

Tutor Marked Assignment
PETROLOGY

Course Code: BGYCT-135
Assignment Code: BGYCT-135/TMA/2021-2025

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) Rock cycle (5)
 - b) Tabular classification of igneous rocks (5)
2. Discuss different types of structures found in igneous rocks with the help of neat well labelled diagrams. (10)
3. Explain crystallisation behaviour of binary system with complete solid solution of two end members with the help of neat well labelled diagrams. (10)
4. Describe the megascopic and microscopic characters of gabbro and basalt with help of neat well labelled diagrams. (10)
5. Discuss role of Bowen's reaction series in the differentiation of igneous rocks. (10)

Part B

6. Describe different types of secondary sedimentary structures with the help of neat well labelled diagrams. (10)
7. Differentiate the following:
 - a) Extrusive and intrusive igneous rocks (5)
 - b) Non-clastic and clastic rocks (5)
8. Explain the factors affecting metamorphism, in detail. (10)
9. Explain different types of structures found in metamorphic rocks with help of neat well labelled diagrams. (10)
10. Discuss the megascopic and microscopic characters of following rocks:
 - a) Quartzite (5)
 - b) Sandstone (5)