

Parvatibai Chowgule College of Arts and Science  
Autonomous

BSc Semester End Examination, March 2022

Semester: V

Subject: Geology

Course Title: Sedimentary Petrology (Core)

Duration: 2 hours

Max. Marks: 45

**Instruction to candidates:**

1. All questions are *compulsory*.
2. Figures to the *right* indicate *maximum marks* allotted.
3. Answers to the main question must begin on a fresh page.
4. Answers must be relevant to the questions.
5. Draw neat labelled diagrams wherever essential.

**Q I. Answer ANY THREE from the following: (09)**

- a. Why does a fissile shale soils our hands where as a recrystallized mudrock does not?
- b. What is a facies association?
- c. Describe the steps involved in the deposition of sediments by turbidity currents.
- d. What are graywackes?

**Q II. Answer ANY TWO from the following: (12)**

- e. Sketch and explain the textural maturity classification diagram given by Folk 1951.
- f. What is the significance of mono-crystalline, polycrystalline and stressed quartz grains in provenance analysis?
- g. Give an account of radiaceous sedimentary rocks based on their origin.

**Q III. Answer ANY TWO from the following: (12)**

- h. What are varve deposits? How are they significant in depositional environment analysis?
- i. Discuss in detail the features associated with 'epsilon cross beds'.
- j. Write a note on carbonaceous deposits.

**QIV. Answer ANY ONE from the following: (12)**

- A.
- i. Enlist and comment on the various types of deposits found associated with a meandering river system.
  - ii. Corals and coral reefs found in the sedimentary rocks form an important record of the earth's past. Explain?

OR

B. (12)

- i. What are erosional primary sedimentary structures? Discuss their formation and their utility in palaeocurrent analysis?
- ii. Write a note on the economic and geologic significance of sedimentary rocks.

\*\*\*\*\*