Parvatibai Chowgule College of Arts and Science
Autonomous

BSc Semester End Examination, March 2022

Semester: V
Subject: Geology
Course Title: Sedimentary Petrology (Core)
Duration: 2hours

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 rudaceous 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.

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