

November 2025
M.Sc.
First Semester
CORE – 04
GEOLOGY
Course Code: MGLC 1.41
(Sedimentology)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the primary and secondary sedimentary structures with neat diagram. 14
2. Write a note on each of the following: 7×2=14
 - (a) Laminar flow and turbulent flow
 - (b) Hjulstrom effect and Froude number

UNIT-II

3. What are ichnofossils? Discuss their significance in a depositional environment. 14
4. Write a note on each of the following: 7×2=14
 - (a) Fluvial sedimentary environment
 - (b) Lithofacies assemblage of an arid environment

UNIT-III

5. Discuss the classification of sedimentary basins based on their tectonic settings. 14
6. Write a note on each of the following: 7×2=14
 - (a) Tectonic control of sedimentation
 - (b) Basin analysis

UNIT-IV

7. Write an account of shallow coastal clastics. 14

8. Write a note on each of the following: 7×2=14
(a) Carbonate platforms
(b) Deep water sedimentation

UNIT-V

9. Discuss the principles and methods of palaeocurrent analysis in sedimentary rocks. 14
10. Write a note on each of the following: 7×2=14
(a) Provenance determination using feldspar
(b) Construction of a vertical profile section
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