

**21I901**

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Name: .....

Reg. No: .....

**NINTH SEMESTER M.Sc. INTEGRATED GEOLOGY DEGREE EXAMINATION,  
NOVEMBER 2025**

(CBCSS)

(Regular/Supplementary/Improvement)

**CC20GLO9IB19 – APPLIED SEDIMENTOLOGY**

(Geology)

(2020 Admission onwards)

Time : Three Hours

Maximum : 80 Marks

Credit : 4

*(Draw neat sketches, wherever necessary)*

**PART – A**

Answer any **ten** question. Each question carries 2 marks.

1. What is hydrolysis in chemical weathering?
2. What is saltation?
3. Define Froude number.
4. Rudaceous rocks.
5. Sediment deposition.
6. Critical traction velocity.
7. Brief characteristic features of glacial deposits.
8. Types of dunes.
9. Basin formation in compressional setting.
10. Define XRD.
11. Give one reason for using acid-cleaned containers for metal analyses.
12. State what particle size class (in  $\Phi$  units) typically separates sand from silt.

**(10 × 2 = 20 Marks)**

**PART – B**

Answer any **five** question. Each question carries 8 marks.

13. Write a note on saprolite and its formation.
14. Discuss ripple marks and their types.
15. Explain different kinds of siliciclastic rocks.
16. Explain fluvial system.
17. Neomorphism.

18. Elucidate the fundamental principle of X-Ray Diffraction (XRD), list out key drawbacks and advantages over other methods.
19. Discuss various environmental applications of clay minerals.

**(5 × 8 = 40 Marks)**

**PART – B**

Answer any *two* question. Each question carries 10 marks.

20. Discuss the role of climate, lithology, and time in controlling weathering and soil formation.
21. Explain various types of conglomerates.
22. Explain light and heavy minerals as provenance indicator.
23. Explain with the help of a flowchart, the methods for selecting appropriate core samplers based on site-specific factors.

**(2 × 10 = 20 Marks)**

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