

Roll No. : .....

Total No. of Questions : 11 ]

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# **BFMS-436**

**M.Sc. (Final) Examination, 2023**

**GEOLOGY**

Paper - VI

**(Sedimentology and Petroleum Geology)**

*Time : 3 Hours ]*

*[ Maximum Marks : 75*

**Section-A**

**(Marks : 2 × 10 = 20)**

**Note :-** Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

**Section-B**

**(Marks : 5 × 5 = 25)**

**Note :-** Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

**Section-C**

**(Marks : 10 × 3 = 30)**

**Note :-** Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

**Section-A**

1. Write short notes on the following :

- (i) Clay Minerals
- (ii) Trace Fossils

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- (iii) Stock's Law
- (iv) Sediment Maturity
- (v) Stalactite and Stalagmites
- (vi) Drumlin
- (vii) Physical Properties of Oil
- (viii) Oil Field Brine
- (ix) Resistivity Log
- (x) Petroliferous Basins of Rajasthan

**Section-B**

2. Discuss important soil forming processes.

*Or*

Describe X-ray diffraction method.

3. Explain transportation of sediments.

*Or*

Describe organic sedimentary rocks.

4. Discuss marine and continental evaporites.

*Or*

Describe reconstruction of paleoenvironment.

5. Explain structural and stratigraphic traps.

*Or*

Write a note on reservoir mechanics.

6. Explain Geophysical mapping.

*Or*

Describe the various types of Drilling in Petroleum.

### **Section-C**

7. Write a detailed note on the process of sedimentation.
8. Explain Clastic sedimentary rocks.
9. Discuss characteristic features of glacial sedimentary environment.
10. Describe migration and accumulation of petroleum.
11. Explain principles and techniques of petroleum exploration.