

M.Sc. (Final) Examination, 2001

GEOLOGY

Paper-VII

**(Sedimentology, Photogeology,
Ground-water Geology)**

Time Three Hours
Maximum Marks: 100

Attempt **five** questions in all.
Select at least **two** from Section-A and
one each from Section—B and C.
All questions carry equal marks.

Section-A

1. Give the classification of Carbonate rocks and discuss their petrogenesis. **10+10**
2. Briefly describe the various sedimentary environments. Give the characteristic rocks formed in each of them. **14+6**
3. Give an account of any **one** of the following: - **20**
 - (a) Types of transportation in the formation of sedimentary rocks.
 - (b) Palaeocurrent study and its application in basin analysis.
4. Briefly describe any **two** of the following: **10+ 10**
 - (a) Sedimentation and Tectonics.
 - (b) Classification of Sandstones.
 - (c) Mineral stability in Sedimentary rocks.
 - (d) Post-depositional changes in Sedimentary rocks.

SECTION-B

5. Discuss the application of aerial photographs in the analysis of Geomorphology, mineral exploration, geological structures and ground-water search in brief. **5+5+5+5**
6. Write descriptive notes on any **two** of the following: **10+ 10**
 - (a) Remote sensing.
 - (b) Vertical exaggeration.
 - (c) Errors and distortions in aerial photographs.
7. Give an account of Flight procedures and computation of flight lines. Describe the rectification procedure in aerial photographs. **7+7+6**

SECTION-C

8. Give the criteria indicating the suitability of water for (i) domestic, (ii) irrigation, and (iii) industrial purposes. **7+7+6**
9. How would you proceed to prospect of ground water in following regions:
- (i) Arid regions.
 - (ii) Deccan Trap country.
 - (iii) Gneiss-Granulite terrain.
 - (iv) Saline tracts. **5+5+5+5**
10. Write descriptive notes on any **two** of the following:
- (a) Hydrogeological properties of rocks.
 - (b) Methods of artificial recharge of water.
 - (c) Ground-water provinces of Rajasthan. **10+ 10**