This question paper contains 2 printed pages.]

1312 *Your Roll No. .....*

B.Sc. (Hons.) Geology / Sem. II A

Paper – GEHT-205 – SEDIMENTOLOGY

Time : 3 Hours *Maximum Marks : 75*

(Write your Roll No. on the top immediately on receipt of this question paper.)

*Attempt any **five** questions.*
All questions carry equal marks.

1. Describe the role of chemical stability of common rock forming minerals and its influence of rate of weathering of silicate rocks. Give a short account of rock forming minerals and arrange them with increasing stability.

2. Describe the role of flow velocity and grain size during the entrainment and transportation of sediments. Explain your answer with Hjulstrom's diagram for three grain size intervals.

3. Write short notes on any **two** of the following :

(i) Debris – flow deposits

[P.T.O.

(ii) Liquified flow deposits

(iii) Turbidity current deposits

4. Define major types of structures observed in sedimentary rocks. How you will differentiate between primary and syn-sedimentary deformational sedimentary structures.

5. What is the basis of classification of sandstones ? Give a brief account of sandstones classification by Gibert (1982) and describe the important features of two major types of sandstones using this classification.

6. Discuss the role of atmospheric CO_2 during the precipitation of carbonales in geological record in varying proportion. Explain important diagenetic features of the carbonate rocks.

7. Write short notes on any **two** of the following :

(i) Quartz overgrowth

(ii) Trace fossils

(iii) Flaser and lenticular beddings

8. Describe principal types of phosphorite deposits. What is the rock of upwelling in the formation of phosphoric deposits in shallow marine environments ?