

Sl. No. 1449

F-7

Unique paper code: 2191303

Subject: **Geomorphology**

Course: **B.Sc. (Hons.) Geology (Erstwhile FYUP)**

Your Roll No. \_\_\_\_\_

Semester : III

Time: **3 hours**

Maximum marks: 75

**Instructions to candidates**

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

***Question no. 1 is compulsory***

- 1) Differentiate between any three:
  - a. 'Hack' and 'Penck' models of long term landscape evolution
  - b. Streams competence and capacity
  - c. Braided river and Anastomosing river
  - d. Turbulent flow and laminar flow
- 2) (a) Describe the mechanism that allow glaciers to move.  
(b) Explain how arêtes, cirques and horns form.
- 3) Apply concepts of geomorphic system to explain how the surface runoff from a landscape will differ under following circumstances:
  - a) steady rainfall
  - b) increasing rainfall through time during storm(consider starting moisture content to be similar in both the cases).
- 4) Write short notes on any two:
  - (a) Largest topography feature of the Earth
  - (b) Effects of thickening of crust
  - (c) Bathymetric zones of ocean
- 5) Explain any five Karst weathering landforms.
- 6) Discuss any two of the following concepts in geomorphology:
  - (a) Concept of equifinality
  - (b) Concept of Uniformitarianism
  - (c) Geomorphic thresholds
- 7) Discuss the basic principle of mass wasting processes. Explain your answer with labelled sketches of any two mass wasting landforms.
- 8) Write short notes on any two of the following:
  - a) Revised universal soil loss equation (RUSLE)
  - b) Reynold's number
  - c) Froude number