

**2024**  
**SRMUJ**  
**1<sup>st</sup> Semester Examination**  
**M.Sc.**  
**GEOGRAPHY**  
**GEO-102**  
**Geotectonics & Geomorphology**

**Full Marks: 40**

**Time: 2 Hours**

*The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.*

**1. Answer any four from the following questions: 2×4**

- a) What is the half-life of an isotope?
- b) What is meant by Molasses basin?
- c) What is Reynold Number?
- d) Define 'geomorphic threshold'.
- e) What is the significance of 'Coulomb-Terzaghi shear strength equation'?
- f) How are pluvial lakes formed during Pleistocene glaciations?

**2. Answer any four from the following questions: 8×4**

- a) Describe the different tectonic zones of the Himalayas mentioning their geological significance.
- b) Discuss the role of Neo-tectonics in shaping contemporary landforms with examples from the Great Plains of India.
- c) Explain the process-form relationship in periglacial regions.
- d) Describe the various parameters of channel geometry highlighting their role in controlling flow hydraulics of a river.
- e) What are the geomorphic consequences of construction of large dam on fluvial systems?
- f) How do lithological variations influence the geomorphology of the Chotanagpur Plateau?