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Unit – III

Drainage Basin & Fluvial Geomorphology

5. Define drainage basin mentioning its different morphological components using suitable illustrations. State the basic principles of delineating a drainage basin. 6+4
6. Discuss the channel lengthening, widening and deepening processes of a river and their impacts on fluvial land form dynamics. 10

Unit – IV

Glacial and Periglacial Geomorphology

7. Discuss the concept of Glacial Cycle with their characteristic features. Explain how the Glacial and Interglacial periods are associated with the Milankovitch Cycle. What is the significance of the Little Ice Age? 5+3+2
8. Define permafrost and active layer? Explain in detail the various periglacial processes. What is a Pingo? 4+4+2
9. Internal Assessment 10

Ex/PG/Sc/CORE/GEOG/TH/C101T/2023

MASTER OF SCIENCE EXAMINATION, 2023

(1st Year, 1st Semester)

GEOGRAPHY

PAPER – GEOG C101T

[QUATERNARY GEOMORPHOLOGY]

Time : Two Hours

Full Marks : 50

Answer *one* question from each unit.

Unit – I

Concepts and Techniques in Geomorphology

1. Explain the role of spatial and temporal scale in Geomorphic Systems. Define the concept of Equilibrium and Feedback mechanism. 6+4
2. What is an Erosional Surface? Describe the elements of slope with the help of Wood and King's hillslope evolution theories. 2+8

Unit – II

Channel Morphology

3. Define wetted perimeter of a channel. Differentiate between uniform and non-uniform flow. Enumerate the factors of velocity distribution in open channels. 2+4+4
4. Classify channel forms. Elucidate the processes leading to the formation of different types of channels. 2+8

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