QP Code: 24/PT/15/IA

POST-GRADUATE DEGREE PROGRAMME

Term End Examination —December, 2024

GEOGRAPHY

Paper-IA : GEOTECTONICS & GEOMORPHOLOGY

Time : 2 hours] [Full Marks : 50

Weightage of Marks : 80%

Special credit will be accuracy and relevance in the answer. Marks will be deducted for incorrect spelling, untidy work and illegible handwriting. The weightage for each question has been indicated in the margin.

Answer any *three* questions from Section-A selecting at least *one* from each Unit. Question No. 7 in Section-B is compulsory.

Section - A $10 \times 3 = 30$

[Unit-I : Geotectonics]

1. Explain the mechanism of different plate boundaries. Briefly state about the resultant landform features with examples. 4 + 6

2. Classify and discuss volcanic eruptions with examples. Briefly discuss Big Bang theory. 5 + 5

3. What is gravity anomaly ? Critically explain the theory of Isostasy as put forward by either Airy or Pratt. 2 + 8

[Unit-II : Geomorphology]

4. Critically explain the landform evolution model as put forward by W. Penck.

5. Elucidate the slope evolution concept of A. Wood and L. C. King. 5 + 5

6. Discuss briefly the concept and need of applied geomorphology. State about its applications. 4 + 6

Section - B

7. Answer any *five* questions : $4 \times 5 = 20$

a) Briefly explain why Hack's theory is known as 'Dynamic Equilibrium Theory'.

b) Write an account of triple junction with examples and diagrams.

c) Briefly discuss the formation of Mid Oceanic Ridge with example.

d) Distinguish between Alluvial Cone and Alluvial Fan.

e) Distinguish between Batholith and Lopolith.

f) Justify how volcanic eruption is related with hotspot and sea-floor spreading.

g) Distinguish between subduction and abduction with example.

h) State the salient features of Crater and Caldera.

i) Briefly state about slope replacement with resultant landforms.

j) Discuss the concept of equilibrium in geomorphology.