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PG CBCS
M.Sc. Semester-I Examination, 2022
GEOGRAPHY
PAPER: GEO 101
(EARTH'S SURFACE PROCESSES)

Full Marks: 40 **Time: 2 Hours**

Write the answer for each unit in separate sheet

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

GEO 101.1: GEOTECTONICS

Marks: 20

GROUP-A

1. Answer any ONE question: **1×8=8**

a) Examine the significance of paleomagnetic information in understanding supercontinent cycle.

b) Illustrate the origin of volcanic-arc system with reference to plate dynamics.

GROUP-B

2. Answer any TWO questions: **2×4=8**

a) How does dynamo effect explain the origin of earth's magnetic field?

b) Discuss the role of fossils in relative dating of rocks.

c) Explain how ridge push and slab pull influence the plate movement?

d) Write about some indicators of neotectonism in India.

GROUP-C

3. Answer any TWO questions: **2×2=4**

a) Mention the features of a neutron star.

b) Write the principle of radioactive decay.

c) Define geotectonic hot spot.

d) What is flake tectonics?

P.T.O.

GEO 101.2: GEOMORPHOLOGY

Marks: 20

GROUP-A

1. Answer any ONE question: **1×8=8**

a) Explain different concepts of equilibrium and their applications in geomorphology.

b) Briefly discuss the scope of application of geomorphological knowledge in hydrological planning.

GROUP-B

2. Answer any TWO questions: **2×4=8**

a) Enumerate the factors that offset the balance between shear stress and shear strength along a slope.

b) Elucidate the functional approach of landform studies.

c) What are the major approaches to control flash flood in a mountainous area?

d) Make a comparative assessment of the principles of uniformitarianism and catastrophism with suitable examples.

GROUP-C

3. Answer any TWO questions: **2×2=4**

a) How is graded slope developed?

b) Define 'complex response'.

c) What is 'local base levels' of erosion?

d) Define angle of repose.

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