

POST-GRADUATE DEGREE PROGRAMME
Term End Examination — December, 2024
ENVIRONMENTAL SCIENCE (PGES)
Paper : ENVS CC202 : ENVIRONMENTAL GEOSCIENCES
AND CLIMATE CHANGE
(Under CBCS from January 2024 Enrolment Session)

Time : 2 hours

Full Marks : 50

Weightage of Marks : 80%

Special credit will be given for 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.

1. Answer any *five* of the following : 2 × 5 = 10
- a) Mention any two demerits of the Nebular Hypothesis of Laplace.
 - b) What do you understand by Pliocene epoch of Tertiary period ?
 - c) Define scale of meteorology.
 - d) What is Milankovich forcing for climate change ?
 - e) What is loess deposit ? Mention its significance.
 - f) Mention any two major factors responsible for sand dune formation.
 - g) Distinguish hydrolysis and hydration type of chemical weathering.
 - h) Name two major mica producing states with host rock.
2. Answer any *four* of the following : 5 × 4 = 20
- a) Explain interior structure of the Earth in the light of seismology.
 - b) Write short notes on : $2\frac{1}{2} + 2\frac{1}{2}$
 - i) Waterfall
 - ii) Flood plain
 - c) Give a short account on GRIHA Rating Norms.
 - d) What is erosion ? Explain any two erosion control methods and practices. 2 + 3

- e) Give an account on climate change with reference to geological record. 2 + 3
- f) Briefly explain mountain building with reference to plate tectonics. 2 + 3
- g) What is river erosion ? Write down the different erosional landforms of rivers. 2 + 3
- h) What is coriolis force ? How does it influence the formation of cyclones and anticyclones. 2 + 3
3. Answer any *two* of the following : 10 × 2 = 20
- a) Write down the salient evidences in support of continental drift theory. Mention the limitations of this theory. 6 + 4
- b) What is ITCZ ? Briefly discuss onset and advancement mechanism of Indian monsoon. Explain with diagram. 2 + 5 + 3
- c) What is Cation Exchange Capacity of Soil ? Explain various soil conservation methods adopted in our country. 2 + 8
- d) Give a brief account on human – induced changes in atmospheric composition and land cover. Write down five goals of National Water Mission. 6 + 4
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