

May 2025
M.Sc.
Fourth Semester
CORE – 11
GEOLOGY
Course Code: MGLC 4.11
(Environmental Geology & Climatology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Discuss the various anthropogenic activities associated with industrialization and urbanization contributing to surface quality degradation. 14
2. Discuss the role of water management practices in mitigating the effects of waterlogging caused by the indiscrete construction of canals and dams. 14

UNIT-II

3. Discuss the consequences of chemical fertilizers and pesticides on soil quality. What are the potential risks associated with their continued use in agriculture, and what alternative practices could be adopted to promote soil health? 14
4. Discuss the impact of geological factors on environmental health in the context of waste disposal. 14

UNIT-III

5. What a note each on the following: 7×2=14
 - (a) Volcanism
 - (b) Magnitude and intensity of earthquakes
6. What do you understand by deforestation? Briefly describe its causes, impact, and remedial measures. 2+12=14

UNIT-IV

7. Explain in detail the vertical and horizontal distribution of temperature. 14
8. Write a note each on the following: 7×2=14
- (a) Heat budget
 - (b) Wind belts

UNIT-V

9. Discuss the formation of westerlies and jet streams and their influence on weather patterns and climate variability. 14
10. Briefly describe Thornthwaite's classification of climate. 14
-