

April 2025
B.A./B.Sc.
Sixth Semester
CORE – 13
GEOLOGY
Course Code: GGC 6.11
(Engineering Geology)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Write notes on the following: 7×2=14
 - (a) Compressive strength as engineering properties of rock
 - (b) Abrasive resistance and density as properties of rocks suitable for raw materials
2. Explain in detail the important site characteristics for suitable and safe engineering project. 14

UNIT-II

3. Write notes on the following: 7×2=14
 - (a) Properties of rock aggregates for road
 - (b) Rock bolting
4. (a) Explain in detail the various support mechanism in engineering structure. 7
(b) Explain in detail the types of rocks as suitable aggregates and its uses. 7

UNIT-III

5. What is tunnelling quality index? Explain the mechanism and significance of TQI. 2+12=14
6. Give the difference between rock mass rating and rock structure rating. 14

UNIT-IV

7. What is a dam? Explain the different types of dams with neat labelled diagram. 2+12=14
8. Write short notes on the following: 7×2=14
- (a) Forces acting on a dam
 - (b) General characteristics of different types of commonly occurring rocks in tunnel site

UNIT-V

9. Describe the geological characteristics that need to be considered in construction of highways. 14
10. (a) Elaborate on the geological characteristics in selection of site for bridges. 7
- (b) Define landslide and give the general classification of landslide. 7
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