2023
B.A./B.Sc.
Sixth Semester
CORE – 13
GEOLOGY
Course Code: GLC 6.11
(Engineering Geology)

Total Mark: 70 *Pass Mark: 28*
Time: 3 hours

Answer five *questions, taking* one *from each unit.*

UNIT–I

1. Discuss in detail the engineering properties of rock. 14

2. Write notes on the following: 7×2=14
   (a) Site characterization with respect to subsurface conditions
   (b) Importance of engineering geology

UNIT–II

3. What is meant by foundation treatment? Elaborate on the different mechanisms of grouting. 2+12=14

4. Write notes on the following: 7×2=14
   (a) Rock bolting mechanisms
   (b) Rock aggregates

UNIT–III

5. Explain the geomechanics of tunnelling quality index. How is it related to excavation support ratio? 8+6=14

6. Write notes on the following: 7×2=14
   (a) Rock structure rating
   (b) Rock mass rating

UNIT–IV

7. Explain the geological considerations in the construction of a dam. 14

8. Describe the steps involved in the construction of a tunnel. Mention some tunnelling machines that can be used for this purpose. 9+5=14

UNIT–V

9. Explain the geological considerations in the construction of a bridge. 14

10. Classify the various types of landslides. What are the various factors controlling mass wasting? 8+6=14
