

ANURAG Engineering College
(An Autonomous Institution)

II B.Tech I Semester Supplementary Examinations, December–2024

ENGINEERING GEOLOGY
(CIVIL ENGINEERING)

Time: 3 Hours

Max. Marks: 60M

Section – A (Short Answer type questions)

(10 Marks)

Answer All Questions

	Course Outcome	B.T Level	Marks
1. Cite any two examples of Civil engineering constructions failures due to geological drawbacks.	CO1	L1	1M
2. Define the term geology and give their importance.	CO1	L1	1M
3. List the physical properties of Hematite.	CO2	L1	1M
4. Mention uses of Sandstone in Engineering applications.	CO2	L2	1M
5. What are the four basic processes that causes soil formation?	CO3	L1	1M
6. List the eight provinces division in India with respect to the occurrence of ground water.	CO3	L1	1M
7. Define shield area.	CO4	L1	1M
8. Mention the importance of electrical resistivity method.	CO4	L2	1M
9. What is the purpose of tunnel lining?	CO5	L2	1M
10. Why watertightness is important in reservoirs?	CO5	L2	1M

Section B (Essay Questions)

Answer all questions, each question carries equal marks.

(5 X 10M = 50M)

11. A) Discuss the importance of physical and structural geology.	CO1	L2	10M
OR			
B) Explain the effect of weathering on the properties of rocks.	CO1	L2	10M
12. A) i) What is the role of study of physical properties of minerals in the identification of minerals?			3M
ii) Describe the physical properties of given minerals a) Feldspar b) Graphite	CO2	L2	7M
OR			
B) Describe the engineering properties for any two of i) Igneous rocks ii) Metamorphic rocks.	CO2	L2	10M
13. A) i) Illustrate various types of joints.			6M
ii) Explain common types of soils in India.	CO3	L2	4M
OR			
B) i) Describe different techniques to be adopted for the stabilization of existing soils.			6M
ii) Explain the process of ground water exploration.	CO3	L2	4M
14. A) i) Discuss the causes and effects of earthquakes.			6M
ii) List the precautions to be taken for building construction in earthquake prone areas.	CO4	L2	4M
OR			
B) i) Explain how the sub-surface features can be studied with the help of Electrical resistivity and seismic refraction methods.			7M
ii) Explain the how by grouting competency of site can be enhanced.	CO4	L2	3M

15. A) Discuss the factors contributing to the success of a reservoir. Illustrate with few examples where in geological factors leads to dam failures. CO5 L2 10M
- OR**
- B) List the uses of dams and various types of dams. Discuss the geological considerations in the selection of dam site. CO5 L2 10M