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Question Paper Code	12910
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B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

Third Semester

Civil Engineering

20CEPC305 - ENGINEERING GEOLOGY

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

	Marks	K- Level	CO
1. Define Geology.	2	K1	CO1
2. List the layers of interior of earth.	2	K1	CO1
3. Define Lusture.	2	K1	CO2
4. Write the physical properties of quartz.	2	K1	CO2
5. Define rock folds.	2	K1	CO3
6. List the types of dips.	2	K1	CO3
7. Define remote sensing.	2	K1	CO4
8. What is meant by GPR?	2	K1	CO4
9. Differentiate between arch and gravity dams.	2	K2	CO5
10. What are the geological problems occurring after dam construction?	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Explain in detail about the structure of the earth and its composition with neat diagram.	13	K2	CO1
OR			
b) Discuss in detail about the scope of geology and importance of geology in Civil Engineering.	13	K2	CO1
12. a) Explain in detail, the various physical properties of minerals and describe each property with example.	13	K2	CO2
OR			
b) Discuss about the composition, texture, characteristics, occurrence and uses of Granite, Basalt, and Marble.	13	K2	CO2
13. a) Bring out the distinguishing characters and properties of Igneous, Metamorphic and Sedimentary rocks.	13	K2	CO3

OR

- b) Describe the varieties, composition, properties and uses of gypsum, quartz and feldspar. 13 K2 CO3
14. a) Classify the different types of rock folds in detail. 13 K2 CO4
- OR**
- b) Discuss the causes of faults and effects on the engineering quality of rocks. 13 K2 CO4
15. a) Explain the operating principle, procedure and applicability of the seismic methods of subsurface investigation. 13 K2 CO5
- OR**
- b) Give a detailed account of the various geological structures and their role in selection of sites for engineering projects. 13 K2 CO5

PART - C (1 × 15 = 15 Marks)

16. a) Using case studies, give a detailed account of applications of remote sensing in civil engineering. 15 K2 CO6
- OR**
- b) Give an account of causes of inherent weakness in rocks. How rock qualities could be improved by artificial treatment. 15 K2 CO6