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II/IV B.Tech. DEGREE EXAMINATION, JANUARY, 2023

CIVIL ENGINEERING

Time: 3 hours

Part-A is compulsory

Answer to any single question or its part shall be written at one place only

10 x 1 = 10M

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PART-B

4 x 15 = 60M

UNIT-I

2. a. Explain about the significance of study of various physical properties in the identification of minerals. **(CO1 K2) 8M**
- b. How does geology related to engineering field and explain about the scope and applications of geology in the planning and execution of civil engineering works. **(CO1 K2) 7M**

(or)

3. a. State about the engineering concerns and features of the following rocks:
i) Granite and Basalt ii) Sand stone and Marble **(CO1 K2) 8M**
- b. Explain about the factors influencing metamorphism and give examples for metamorphic rocks. **(CO1 K2) 7M**

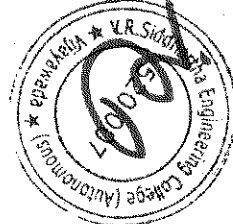
UNIT-II

4. a. Discuss the classification of folds and their role in civil engineering projects. **(CO2 K2) 8M**
- b. Discuss the importance of faults in civil engineering. **(CO2 K2) 7M**

(or)

5. a. Write about the causes and effects of the earthquake. **(CO2 K2) 8M**
- b. Discuss the process of weathering and its importance in civil engineering. **(CO2 K1) 7M**

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UNIT-III

6. Explain about the principle and interpretation of Electrical resistivity method along with neat sketch and write about its applications.

(CO3 K3) 15M

(or)

7. a. Explain about features of geological map and topographic map and write about their construction methods. **(CO3 K3) 7M**
- b. Explain about the principle and interpretation of Seismic refraction method along with neat sketch and write its limitations.

(CO3 K3) 8M

UNIT-IV

8. a. Explain about the fundamental concepts of environmental Geology and write its features. **(CO4 K3) 7M**
- b. Explain the geological methods for selection of tunnel sites.

(CO4 K2) 8M

(or)

9. a. State and explain about the health hazards due to ground water contamination. **(CO4 K2) 8M**
- b. State and explain about the factors affecting the selection of site for construction of dams. **(CO4 K2) 7M**

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