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Question Paper Code:R1104

B.E./B.Tech. DEGREE EXAMINATION, NOV/DEC 2024

First Semester

Civil Engineering

R21UCE104 - ENGINEERING GEOLOGY AND CONSTRUCTION MATERIALS

(Regulations R2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (5x 1 = 5 Marks)

1. Clinometers is used for determine the CO1- U
(a) levels (b) geological mapping and surveying (c) distance (d) angles
2. Hardness value of Microcline is, CO1- U
(a) 6 to 6.5 (b) 7 to 8 (c) 6 to 6.9 (d) 6 to 8
3. The process of kneading brick earth is called CO1- U
(a) Pugging (b) Blending (c) Ramming (d) Tamping
4. Le chateliers apparatus is used to carry out CO1- U
(a) soundness test (b) consistency test (c) compressive strength (d) tensile strength
5. The steel used in RCC work is CO1- U
(a) stainless steel (b) mild steel (c) high carbon steel (d) wrought iron

PART – B (5 x 3= 15 Marks)

6. Differentiate focus and epicenter CO1- U
7. Describe a brief note on stratification. CO1- U
8. Analyzing the characteristics of good building stone CO1- U
9. What is meant by hydration of cement? CO1- U
10. When and where distemper is used? CO1- U

PART – C (5 x 16= 80 Marks)

11. (a) Explain the forms of Igneous Rocks with neat sketch CO1- U (16)
- (b) Explain the formation of sedimentary rock and in engineering applications. CO1- U (16)
12. (a) Give a detail note on internal structure of earth with neat diagram CO1- U (16)
- (b) List and discuss in detail about the classification of joints. CO1- U (16)
13. (a) Explain any four testing of bricks CO1- U (16)
- (b) Enumerate the characteristics to be considered for selection of stones for civil engineering works. CO1- U (16)
14. (a) Explain the Wet and dry method of manufacturing of cement CO2- App (16)
- (b) Experiment with the list of testing on cement CO2- App (16)
- a. Compressive strength
 - b. tensile strength
 - c. fineness
 - d. soundness
15. (a) List the various method of seasoning of timber. CO1- U (16)
- (b) Explain about the geomembranes and geotextiles for earth reinforcement CO1- U (16)