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Question Paper Code: 93302

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Third Semester
Civil Engineering

19UCE302 – ENGINEERING GEOLOGY AND CONSTRUCTION MATERIALS

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Average Radius of the earth CO1- U
(a) 6400Km (b) 6700km (c) 6371Km (d) 6371m
2. Hardness value of Microcline is, CO1- U
(a) 6to6.5 (b) 7to8 (c) 6to6.9 (d) 6to8
3. The process of kneading brick earth is called CO3- A
(a) Pugging (b) Blending (c) Ramming (d) Tamping
4. Use of coarser cement particles leads to CO3- A
(a) Low durability (b) Higher strength (c) Low consistency (d) Higher soundness
5. The innermost central portion/core of tree is CO3- Ana
(a) Heart wood (b) Pith (c) Bark (d) Sap wood

PART – B (5 x 3= 15Marks)

6. Differentiate focus and epicenter CO1-U
7. Identify the different physical properties of minerals. CO2-A
8. Analyzing the characteristics of good building stone. CO3-A
9. Differentiate the initial and final setting time of cement. CO3-A
10. Discuss the causes of decay of wood work. CO1- U

PART – C (5 x 16= 80 Marks)

11. (a) Explain physical and chemical weathering process in detail. Add a note on weathering grade and its engineering significance. CO1- U (16)
- Or
- (b) Enumerate the geological process associated with winds. Write their engineering significance. CO1- U (16)
12. (a) List the various physical properties of minerals and describe each property with examples. CO1- U (16)
- Or
- (b) Analyze a case study about rocks and mineral resource of any geological conditions in India. CO3-Ana (16)
13. (a) Prepare flowchart for manufacturing process of bricks. CO2-Ana (16)
- Or
- (b) Demonstrate methods used for quarrying stones for building work CO2-Ana (16)
14. (a) Experiment with detail any four tests on cement. CO3-Ana (16)
- Or
- (b) Experiment with detail any four tests on Aggregate. CO3-Ana (16)
15. (a) Illustrate with diagram for various defects in timber CO1-App (16)
- Or
- (b) Give a brief account of the different types of steel bars used in reinforced concrete construction CO1-App (16)

