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Question Paper Code: 51132

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Third Semester

Civil Engineering

15UCE302 - ENGINEERING GEOLOGY AND CONSTRUCTION MATERIALS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Streak exhibits _____ of minerals.
 - (a) Shine
 - (b) Colour of solid form
 - (c) Breakage plane
 - (d) Colour of powder form
2. Which of the following is carbonate rock
 - (a) Gneiss
 - (b) Marble
 - (c) Schist
 - (d) Slate
3. Earthquake wave which showing longitudinal particle motion
 - (a) P-waves
 - (b) S-waves
 - (c) L-waves
 - (d) R-waves
4. The plunge of a fold is described as the inclination of Fold axis
 - (a) to the horizontal plane
 - (b) to the axial plane
 - (c) to the limb
 - (d) to the crust
5. A good quality stone absorbs water less than
 - (a) 5%
 - (b) 10%
 - (c) 15%
 - (d) 20%
6. The portion of a brick cut across the width, is called
 - (a) Closer
 - (b) Half brick
 - (c) bed
 - (d) bat

7. For the construction of cement concrete floor, the maximum permissible size of aggregate, is
(a) 4mm (b) 6mm (c) 8mm (d) 10mm
8. Vicat's apparatus is used for
(a) Fineness test (b) Consistency test
(c) Setting time test (d) Soundness test
9. Seasoning of timber is to done
(a) to make it water proof (b) to paint it surfaces
(c) to increase its temperature (d) to remove water
10. The steel used for the manufacture of rails, is
(a) Bessemer steel (b) Mild steel
(c) Cast steel (d) Stainless steel

PART - B (5 x 2 = 10 Marks)

11. Discuss about the common clay minerals.
12. Define Earth core.
13. What are types of bricks based on usage?
14. What do you understand by the terms initial setting time?
15. What are the methods of seasoning of timber?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain in detail about the physical properties of minerals and give two mineral examples for each property. (16)

Or

- (b) Discuss in detail the process of weathering of rocks and its relevance to engineering geology. (16)
17. (a) Give a detail note on internal structure of the earth with neat diagram. (16)

Or

- (b) What are Folds? How are they classified? And write its engineering significance. (16)

18. (a) Evaluate in detail about tests conducted on stones. (16)

Or

(b) Explain in detail about the manufacturing process of bricks. (16)

19. (a) Describe in detail about the process of manufacturing of cement by wet and dry process. (16)

Or

(b) Illustrate the tests to be conducted for conventional coarse aggregates? Explain any four tests in detail. (16)

20. (a) (i) Discuss the possible sources of defects in Timber. (8)

(ii) Briefly explain following terms: (i) Veneer (ii) Plywood. (8)

Or

(b) Explain the manufacturing process, properties and civil engineering applications of steel. (16)
