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Question Paper Code: 41313

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

Third Semester

Civil Engineering

14UCE303 - ENGINEERING GEOLOGY

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Which one belongs to the layer of earth?
(a) Regolith (b) Troposphere (c) Crust (d) Epicentre
- New sea floor is created at
(a) deep sea trench (b) mid-oceanic ridge
(c) subduction zone (d) transform fault
- The tendency of the mineral to break along certain direction is known as
(a) Lustre (b) Cleavage (c) Specific gravity (d) Hardness
- What is the hardness of Quartz?
(a) 1 (b) 7 (c) 6 (d) 5
- Factor affecting metamorphism are
(a) Temperature and Pressure (b) Moisture and Air
(c) Weathering (d) None of these

6. Which one of them is used for architecture work?
 (a) Limestone (b) Shale (c) Marble (d) None of these
7. What is outcrop?
 (a) Rocks formed inside the earth (b) Rocks formed inside ocean
 (c) Rocks formed due to magma (d) Rock exposure on earth surface
8. Geophone are used in _____ survey.
 (a) Seismic (b) Geochemical (c) Gravity (d) Electrical
9. Dam is safe, in which one of the structure
 (a) Fault plane (b) Fold dipping in downstream direction
 (c) Fold dipping in upstream direction (d) All the above
10. Sinking of land is known as
 (a) Flowage (b) Rock slide (c) Subsidence (d) All of the above

PART - B (5 x 2 = 10 Marks)

11. Define focus and epicenter in earthquake.
12. Distinguished between amphibole and pyroxene group.
13. List out the factor affecting texture in a rock.
14. Define dip and strike of the bed.
15. Write few coastal prevention structures.

PART - C (5 x 16 = 80 Marks)

16. (a) Write about the geological work of wind and their engineering consideration. (16)
- Or
- (b) (i) Define weathering and factor affecting weathering. (8)
 (ii) Explain the different types of weathering. (8)
17. (a) (i) Explain about any four physical properties of minerals. (8)
 (ii) Write a short note on atomic structure of silicate group. (8)

Or

(b) Write a short note on

- (i) Hypersthene (4)
- (ii) Musovite (4)
- (iii) Clay minerals (8)

18. (a) Distinguish igneous, sedimentary and metamorphic rock. (16)

Or

(b) Explain about the petrological and engineering properties of

- (i) Granite (4)
- (ii) Sandstone (4)
- (iii) Marble (4)
- (iv) Basalt (4)

19. (a) (ii) Describe in brief about the various classification of fold with neat sketch. (16)

Or

(b) List the various methods used for subsurface investigation and explain any one in detail. (16)

20. (a) Explain the geological conditions necessary for the construction of dam and tunnels. (16)

Or

- (b) (i) Write the application of remote sensing in civil engineering. (8)
 - (ii) List out the causes and prevention for landslides. (8)
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