B.E/B.TCH. Degree Examination, December 2020

Third Semester

CE18305-Engineering Geology

(Regulation 2018)

Time: Three hours Maximum : 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 marks)

1. During earthquake, which wave doesn't pass in core portion of earth interior?
   a) P Waves
   b) S Waves
   c) Love Waves
   d) Rayleigh Waves
2. What is the hardness number of Quartz based on Moh's Hardness Scale?
   a) 5
   b) 6
   c) 7
   d) 8
3. Undulation that occurs on the surface of the rock as a result of the stresses that acts on the rock is called _____
   a) Fault
   b) Fold
   c) Joint
   d) None of the above
4. Which of the following is not reason for the occurrence of landslide?
   a) Vegetation on slopes
   b) Presence of water on slopes
   c) Excavation of soil near slopes
   d) Earthquake
5. What is meant by exfoliation?
6. What are the different forms of igneous rock?
7. What is meant by throws and heave?
8. What are the causes of sea erosion?

PART B - (4 X16 = 64 marks)

09. (a) Differentiate physical and chemical weathering. Explain the different types of physical and chemical weathering in detail. **(16)**

(OR)

(b) Describe the erosion, transportation and deposition of landforms due to the geological work of river in detail with neat sketch. **(16)**

10. (a) Describe the various physical properties of minerals with examples in detail. **(16)**

(OR)

(b) Bring out the description, occurrence, engineering properties, distribution and uses of Granite, Limestone, Shale and Schist. **(16)**

11. (a) Classify and describe the fold structure with neat sketches. Add a note on their role in Dam and Tunnel constructions. **(16)**

(OR)

(b) Elaborate the seismic refraction method of subsurface investigation with neat sketch. **(16)**

12. (a) Elaborate the various geological factors to be considered for the construction of dam and reservoirs with neat sketch **(16)**

(OR)

(b) Examine the application of remote sensing in civil engineering and explain with neat sketch. **(16)**