

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Third Semester

CE18305 – ENGINEERING GEOLOGY*(Civil Engineering)***(Regulation 2018)****Time: Three Hours****Maximum : 100 Marks**Answer **ALL** questions**PART A - (10 X 2 = 20 Marks)**

		CO	RBT
1.	What are the various landforms created by erosion and depositional action of sea?	1	R
2.	Differentiate between Physical and Chemical weathering?	1	U
3.	What are the various physical properties of minerals?	2	R
4.	Differentiate colour and streak?	2	U
5.	List out the various types of structures in metamorphic rocks?	3	R
6.	What are the different types of igneous rocks based on location of their formation?	3	U
7.	What is the significance of joints in civil engineering?	4	U
8.	Differentiate between profiling and sounding methods?	4	U
9.	What type of igneous rock is suitable and not suitable for tunneling? Justify	5	U
10.	Define hydrogeological investigation?	5	R

PART B - (5 X16 = 80 Marks)

11. (a) Discuss the internal structure of earth in detail with neat sketch ? (16) 1 U
- (OR)**
- (b) Explain the geological landforms created by wind by erosion and deposition? (16) 1 R
12. (a) Describe the composition, properties, varieties and uses of Feldspar and Pyroxene group minerals. (16) 2 R

(OR)

- (b) Describe the composition, properties, varieties and uses of Mica, calcite and Clay group of minerals. (16) 2 U
13. (a) Give an account on classification of rocks. Discuss in detail the texture, classification, structure and mineral composition of sedimentary rocks. (16) 3 U
- (OR)**
- (b) Write detailed notes on the mineral composition, texture, origin, engineering properties and uses of Limestone, Granite, Shale and Schist. (16) 3 U
14. (a) What are the features of Geological map? Explain about Fault and their types in detail with neat sketch. Also mention what is their significance in Civil engineering. (16) 4 U
- (OR)**
- (b) Describe the types of geophysical methods used for subsurface geological investigations and mineral exploration and give an account on the electrical resistivity method. (16) 4 U
15. (a) Explain in detail on geological conditions necessary for construction of Dams and Reservoirs in detail. (16) 5 U
- (OR)**
- (b) Explain in detail on various causes and mitigation methods for Landslides? (16) 5 U