A **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 53102

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2019

Third Semester

Civil Engineering

15UCE302 -ENGINEERING GEOLOGY AND CONSTRUCTION MATERIALS

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

1. Which mineral group is abundantly found in the earth's crust? CO1-U

   (a) Mica group (b) Feldspar group (c) Oxide group (d) Silicate group

2. The structure most prevalent to clastic rocks is CO1-U

   (a) Nodular structure (b) Geode structure (c) Concretionary structure (d) Lamination

3. A tunnel should not be constructed along CO2-U

   (a) Strike direction (b) Dip direction

   (c) Dip and strike direction (d) Oblique to the bed

4. How is the plunge of a fold measured? CO2-U

   (a) Direction (b) Degree (c) Depth (d) Direction and Degree

5. The Portion of a Brick cut across the width, is called CO3-U

   (a) Closer (b) Half brick (c) Bed (d) Bat

6. The projecting course at ground floor level is known as CO3- U

   (a) Throating (b) Plinth (c) Coping (d) Weathering

7. The initial setting time of lime-pozzolana, is CO4- U

   (a) 30 minutes (b) 60 minutes (c) 90 minutes (d) 120 minutes

8. The ability of cement to maintain a constant volume is called CO4- U

   (a) Flashing (b) Honeycombing (c) Soundness (d) Creep

9. The steel used for the manufacture of rails, is CO5- U

   (a) Bessemer steel (b) Mild steel (c) Cast steel (d) Stainless steel

10. PVC is widely used to make pipes because CO5- U

(a) Cost effective (b) Does not react with chemicals

(c) Easily available (d) Easy to transport

PART – B (5 x 3= 15Marks)

6.	Classify igneous rocks based on their mode of occurrence.	CO1- R	
7.	Briefly explain the importance of studying joints.	CO2 -R	
8.	List some causes for deterioration of stones.	CO3- R	
9.	Write short notes on flakiness index.	CO4 -R	
10.	Give some applications of plywoods.	CO5- R	

PART – C (5 x 16= 80Marks)

11.	(a)	Explain in detail about the physical properties of minerals	CO1 -U	(16)
		Or		
	(b)	Articulate the differences between igneous, sedimentary and metamorphic rocks	CO1- U	(16)
12.	(a)	Explain in detail about the types of faults and their relevance in the construction of civil engineering structures.	CO2 -App	(16)
		Or		
	(b)	Discuss the concepts of plate tectonics and continental drift.	CO2- U	(16)
13.	(a)	Enlist and explain various tests conducted on stones.	CO3- U	(16)
		Or		
	(b)	State and explain the classification of bricks.	CO3 -Ana	(16)
14.	(a)	Summarize the steps involved in manufacturing of cement.	CO4 -U	(16)
		Or		
	(b)	Write down the tests to be conducted on conventional coarse aggregates. Explain any four in detail.	CO4- Ana	(16)
15.	(a)	Explain in detail the causes of decay of wood work and their preservation.	CO5 -U	(16)
		Or		
	(b)	Explain the types of hot-rolled steel sections and cold formed steel sections.	CO5 -U	(16)