DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2018

Course: B. Tech in Civil Engineering **Semester: III**

Subject Name: Engineering Geology **Subject Code: BTCVC306**

Max Marks:60 **Date: 12/12/2018** **Duration: 3 Hr.**

Instructions to the Students:

1. *Solve **ANY FIVE** questions out of the following.*
2. *The level question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Illustrate your answers with neat sketches, diagrams etc. where ever necessary.*
4. *Assume suitable data wherever necessary and mention it clearly.*

		(Level/CO)	Marks
Q. 1	**All questions are compulsory.**		**12**
A)	Write a note on interior of the earth with neat labeled diagram.	**(CO 1)**	
B)	Explain types of volcanoes and its products.	**(CO 4)**	
C)	Write note on type of transportation by wind.	**(CO 1)**	
E)	Define various varieties of quartz group of mineral.	**(CO 2)**	
F)	Using diagram explain the term Meandering.	**(CO 1)**	
G)	Applications of geology in civil engineering.	**(CO 4)**	
Q.2	**Solve any Four of the following.**		**12**
A)	What are the clastic and non-clastic sedimentary rocks and their structures?	**(CO 2)**	
C)	Write in detail on the following properties of minerals with examples. (i) Specific gravity (ii) Hardness (iii) Luster (iv) Cleavage.	**(CO 2)**	
D)	Describe in brief about importance of clay minerals and their use in modern industries.	**(CO 2)**	
E)	Bring out the differences between dykes and sill with diagram.	**(CO 2)**	
F)	Give short notes on types of mountains with suitable examples.	**(CO 1)**	
Q. 3	**Solve any Three of the following.**		**12**
A)	Define fold and describe classification of folds with neat labeled diagrams.	**(CO 3)**	
B)	Describe various parts of fault and its following types with labeled diagram (i) Gravity fault (ii) Reverse fault (iii) Strike slip fault	**(CO 3)**	
C)	Explain in detail different type of unconformities with labeled diagram.	**(CO 3)**	
D)	Define and describe joints and classification with its role in civil engineering.	**(CO 3)**	

Q.4 Solve any Three of the following. **12**

A) What are the factors generally considered by an engineer while deciding use of stone in construction jobs? **(CO 2)**

B) What are the types of Aquifer with neat labeled diagram? **(CO 1)**

C) Explain various dressing methods of building stones. **(CO 2)**

D) What is ground water? Describe the various zones of ground water. **(CO 4)**

Q. 5 Solve any Two of the following. **12**

A) Explain electric resistivity method with following configurations: **(CO 4)**
(i) Wenner configurations (ii) Schlumberger configurations.

B) Give details of importance of geological structures for reservoir site. **(CO 4)**

C) Illustrate important geological requirements considered in the selection of a dam site. **(CO 4)**

Q. 6 Solve any Two of the following. **12**

A) Describe procedure of measurement and calculation of Rock Quality Designation (RQD) and its uses in construction. **(CO 3)**

B) Describe various types of drilling techniques in detail. **(CO 4)**

C) Write a note on objectives of preliminary geological survey in civil engineering structures. **(CO 4)**

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