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S.E. (Civil Engineering) (Second Semester) EXAMINATION, 2019

**ENGINEERING GEOLOGY**

**(2015 PATTERN)**

**Time : 2 Hours**

**Maximum Marks : 50**

- N.B. :- (i) Write the Answers to any four questions in single answer book only.  
(ii) Neat diagrams must be drawn wherever necessary.  
(iii) Figures to the right indicate full marks.  
(iv) Assume suitable data, if necessary.

- Q. 1 a Differentiate the importance of FRACTURE and CLEAVAGE in physical properties of minerals. 6  
b What is an unconformity? Describe any two types of Unconformities. 6  
OR
- Q. 2 a How sedimentary rocks are formed? Explain grain size classification of sedimentary rocks with examples. 6  
b What are discordant and Concordant intrusions? Describe any two discordant Igneous intrusions. 6
- Q. 3 a Explain any three landforms develop due to river erosion. 6  
b What is significance of GONDWANA formation in Indian stratigraphy? 6  
OR
- Q. 4 a Describe the types of mountains. 6  
b What is Remote sensing? What are the elements of image interpretation? Explain importance of ASSOCIATION. 6
- Q. 5 a Why is it necessary to constantly monitor drilling process in Preliminary geological exploration? What precautions are necessary while drilling is encountered with Tachylytes? 7  
b Where do you propose a dam? 6  
i) On dipping strata towards down stream  
ii) On dipping strata towards up stream  
justify your answer by choosing one statement and rejecting the other one on engineering geological grounds

P.T.O.

- OR
- Q. 6 a A road has to be constructed along the hill slope. Illustrate with neat sketch the relation of geology and the slope of the hill. 7  
b Describe feasibility of TUNNEL passing through an area comprising of two fault planes. 6
- Q. 7 a What is artesian condition? Explain the Geological conditions favorable for artesian wells. 7  
b Write note on 6  
i) Depth zones of ground water  
ii) Earthquake waves, epicenter and focus
- OR
- Q. 8 a write note on, 7  
i) Circle of influence  
ii) Cone of depression  
b What are the requirements of good building stones? 6