

Roll No.

24383

B. Tech 6th Semester (Civil)

Examination – May, 2016

ENGINEERING GEOLOGY

Paper : CE-312-F

Time : Three Hours]

[Maximum Marks : 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any five questions selecting first question as compulsory.

1. Attempt any five :

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- (a) Define geology.
- (b) Discuss role of GIS in geological exploration
- (c) List the factors causing landslides.
- (d) Define intrusive and extrusive rocks
- (e) What is soil profile ?
- (f) Define stratigraphy
- (g) Define dip and strike.

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2. (a) Give a general view of the internal structure of the Earth. 10
- (b) Discuss the importance of geological investigation in civil engineering practices. 10
3. (a) Write short note on weathering of rocks and its significance in engineering construction. 10
- (b) Explain briefly some major geological features produced by river erosion. 10
4. (a) What is a rock forming mineral? 5
- (b) Discuss the physical properties of minerals with examples. 15
5. (a) Define fold. Add a note on the engineering importance of folds. 12
- (b) What are broadly accepted causes of faulting of rocks? 8
6. Explain briefly the characteristics of a geological map. Describe how a geological section can be drawn across a geological map. 20

7. (a) Discuss mode of occurrence and methods of flow of subsurface water. 10
- (b) Give an account of different methods used for exploration of ground water reserves. 10
8. What are general geological characteristics of the area that must be known before a tunnel project is decided in that area? 20
9. Give a general account of the stability condition of a slope. In what circumstances a particular part of a slope is likely to suffer a failure? 20