

Code : 011305

B.Tech 3rd Semester Examination, 2016

Engineering Geology

Time : 3 hours

Full Marks : 70

Instructions :

- (i) There are Nine Questions in this Paper.
- (ii) Attempt Five questions in all.
- (iii) Question No. 1 is Compulsory.
- (iv) The marks are indicated in the right hand margin.
- (v) Make the diagram essentially wherever it is required.

1. Write in short limiting to five sentences. 14
- (a) Diagnostic physical properties of Fluorite
 - (b) Characteristics of sand dunes.
 - (c) Recumbent Fold.
 - (d) Over thrust.
 - (e) Unconfined Aqifer.
 - (f) L-wave characteristics.
 - (g) Megascopic properties of any non-clastic sedimentary rock

P.T.O.

2. (a) Describe the landforms developed by glaciers during young and mature stage. 14
- (b) Explain the texture observed in Granite rock.
3. (a) Describe the components of Fault and classification of Fault. 14
- (b) Explain the difference between the plunging and Non-Plunging Fold.
4. (a) Describe the causes of earthquakes and its classification. 14
- (b) Surface and sub-surface investigation for selection of Tunnelling site.
5. (a) Explain the stratigraphy of Gondwana basin. 14
- (b) Concept of Dip and strike and its application.
6. (a) Describe the classification of Metamorphic rocks.
- (b) Explain the principle and application of seismic method. 14
7. (a) Concept of GPS and its application in different geological investigations. 14
- (b) Describe the different layers of Atmosphere and their characteristics.
8. (a) Write down the different textures of igneous rocks.
- (b) Explain the crystal system and their axis of symmetry. 14

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9. Write short notes on following:

- (a) Phaccolith and Dykes
- (b) Isoclinal folds and fold axis
- (c) Ground penetrating Radar and their application
- (d) Engineering properties of Sandstone
