

# CBCS Scheme

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15CT/CV35

## Third Semester B.E. Degree Examination, Dec.2016/Jan.2017 Engineering Geology

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions, choosing one full question from each module.**

### Module-1

- 1 a. What is Engineering Geology? Name the modules of Engineering Geology you have studied. Explain the importance of each module. (08 Marks)  
b. Explain the role Engineering Geology in civil engineering projects. (08 Marks)

**OR**

- 2 a. Name the physical properties which are helpful to identify the minerals. Explain streak and Fracture of a mineral with suitable examples. (08 Marks)  
b. With a neat sketch explain the structure and composition of the earth. (08 Marks)

### Module-2

- 3 What are igneous rocks? How are they formed? Explain the classification of igneous rocks with suitable examples. Mention the engineering considerations of igneous rocks. (16 Marks)

**OR**

- 4 a. With a neat sketch, explain the development of folds, joints, faults and unconformities in rocks. (08 Marks)  
b. Mention the engineering considerations of folds, joints, Faults and unconformities. (08 Marks)

### Module-3

- 5 Define weathering. Explain the types of weathering. Add a note on effects of weathering on civil engineering projects. (16 Marks)

**OR**

- 6 a. Explain Geomorphological aspects in the selection of site for a Dam. (08 Marks)  
b. What are Landslides? Explain the causes and prevention of landslides. (08 Marks)

### Module-4

- 7 a. With a neat sketch explain the Hydrologic cycle. (06 Marks)  
b. Explain Groundwater exploration by electrical resistivity method. (10 Marks)

**OR**

- 8 Write a note on :  
a. Aquifer and its types  
b. Classification of subsurface water  
c. Porosity and permeability  
d. Specific yield and specific retention (16 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

**Module-5**

9 Write a note on :

- a. Applications of Remote sensing
- b. Applications of Geographic Information system (GIS)
- c. Applications of Global Positioning system (GPS).
- d. Uses of Geological maps.

(16 Marks)

**OR**

10 Write a note on :

- a. Impact of mining on Environment
- b. Natural Disaster and their mitigation
- c. Definition and uses land sat imageries
- d. Impact of Reservoirs on environment.

(16 Marks)

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