

## 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)

**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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