

Roll No.

CE - 304**B.E. III Semester**

Examination, June 2016

Engineering Geology**Time : Three Hours****Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
 ii) All parts of each question are to be attempted at one place.
 iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
 iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) Write short note on soil profile.
 b) Write short note on seismic waves.
 c) Write briefly on River Meandering and oxbow lakes.
 d) Describe the crust and internal structure of the earth.

OR

What is weathering and Erosion? Explain briefly different types of weathering processes.

Unit - II

2. a) Write briefly on Rock forming minerals and ore forming minerals.
 b) Write short note on physical properties of the following minerals:
 i) Mica ii) Galena
 c) Write short on:
 i) Axis of symmetry ii) Centre of symmetry
 iii) Plane of symmetry

OR

Interfacial angle

- d) Give a short account of the elements of symmetry, forms developed and examples of minerals from cubic system or in orthorhombic system.

[2]

OR

Discuss the various physical properties of the following minerals:

- | | |
|-----------------|--------------|
| i) Gypsum | ii) Graphite |
| iii) Orthoclase | iv) Asbestos |
| v) Talc | vi) Calcite |
| vii) Quartz | |

Giving their chemical composition, crystal system and distribution in India.

Unit - III

3. a) Write short note on Thermal Metamorphism.
 b) Write short note on any two of the following:
 i) Gabbros
 ii) Breccias and conglomerate
 iii) Granite and Gneiss
 c) Give a brief account of the extra peninsular India.
 d) Explain the structures of Metamorphic rocks.

OR

Explain the classification of sedimentary rocks.

Unit - IV

4. a) Write short note on "Outcrops".
 b) Write short note on True dip and Apparent dip.
 c) Write short note on Aquifers and their types.
 d) Discuss the classification of Joints and their significance in civil engineering construction.

OR

Explain the process of Faulting and various types of faults.

Unit - V

5. a) Write short note on Porosity and Permeability of rocks.
 b) Write short note on specific yield.
 c) Write brief note on Darcy's Law.
 d) Discuss the various geological requirements for site selection of Dam and Reservoirs.

OR

Explain the geological investigation required in tunnelling operations.
