

Roll No

CE-304

B.E. III Semester

Examination, December 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) What are the agents of Mechanical Weathering?
b) Write a note on "Nebular Hypothesis".
c) Name and describe the three types of plate boundaries.
d) Discuss the geological classification of Soils.

OR

Discuss the internal structure of the earth with neat sketch.

Unit - II

2. a) Define mineral and ore with examples.
b) What are rock forming minerals?
c) Name and define the symmetry elements of a crystal.
d) List the various physical properties of minerals. Describe Hardness and Habit or forms in detail.

OR

Give the chemical composition and physical properties of Calcite, Hematite and Quartz.

Unit - III

3. a) Write a note on structural features of Sedimentary Rocks.
b) Write a note on agents of Metamorphism.
c) Explain different forms of Igneous Rocks.
d) Describe the different physical divisions of India.

OR

How rocks are classified? Give the main characteristics of each major class.

Unit - IV

4. a) Distinguish between Dip and Strike.
b) Write a note on Parts of Fault.
c) Distinguish between normal and reverse fault.
d) Classify and describe with neat sketches the different types of folds in rocks.

OR

What are Unconformities? Discuss their various types.

Unit - V

5. a) Write a note on Water bearing strata.
b) Name and define various engineering properties of rocks.
c) Write a note on factors affecting stability of bridges.
d) What is Remote Sensing? Explain the use of Remote Sensing in selection of various civil engineering structures.

OR

Discuss the role of geological aspects in construction of Dams.
