

3E1453

Roll No. : _____

Total Printed Pages : **2****3E1453****B.Tech. (Sem. III) (Main/Back) Examination, January - 2012****Civil Engg.****3CE3 Engineering Geology**

Time : 3 Hours]

[Total Marks : 80

[Min. Passing Marks : 24

Instructions to Candidates :

Attempt any five questions selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. _____ Nil _____

2. _____ Nil _____

UNIT - I

- 1 Describe geological work of rivers in detail using appropriate diagrams.

16**OR**

- 1 Write notes on the following.
(a) Internal structure of the Earth.
(b) Geological Time Scale.

8+8**UNIT - II**

- 2 Describe classification of Igneous rocks.

16**OR**

- 2 Describe texture, mineralogy, origin and engineering properties of the following rocks.
(a) Granite.
(b) Marble.
(c) Sand stone.

6+5+5**3E1453]****1****[Contd...**

UNIT - III

- 3 (a) Describe electrical resistivity method and its application in civil engineering projects.
 (b) Describe various types of joints.

10+6**OR**

- 3 Write short notes of the following.
 (a) Reclined fold.
 (b) Thrust fault.
 (c) Nonconformity.
 (d) Horst and Graben.

4+4+4+4**UNIT - IV**

- 4 Discuss various geological investigations for site selection of Reservoirs and also suggest site improvement methods.

16**OR**

- 4 (a) Describe geological considerations adopted for construction of Bridges.
 (b) Discuss possible reasons of Chambal river single span bridge failure.

10+6**UNIT - V**

- 5 Describe the role of remote sensing in the exploration of minerals.

16**OR**

- 5 Describe satellite imageries and their application in Civil Engineering projects.

16