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**BICE-003**

# B.Tech. CIVIL ENGINEERING (BTCLEVI)

## Term-End Examination

00595 **December, 2014**

## BICE-003 : ENGINEERING GEOLOGY

*Time : 3 hours* *Maximum Marks : 70*

***Note :*** *Attempt any* ***five*** *questions. All questions carry equal marks.*

**1.** (a) Explain the fundamental regularities on the origin of the Earth. 7

(b) Explain the Tidal Hypothesis on the origin of the planetary system with a sketch. 7

**2.** Explain the difference between the following : *2×7=14*

(a) Axis of symmetry and crystallographic axis with sketches.

(b) Holohedral forms and hemihedral forms with sketches.

**3.** Differentiate between an igneous rock, a sedimentary rock and a metamorphic rock on the basis of texture, with two examples of each type. *14*

4. Define the following terms : *7×2=14*

   (a) Gouge

   (b) Horst

   (c) Dip of the fault

   (d) Fault Plane

   (e) Rake

   (f) Nappes

   (g) Hinge faults

5. (a) Write a comparative note on suitability of different rocks for dam construction. *7*

   (b) Write a general note on geological problems after dam construction. *7*

6. Write notes on any ***two*** of the following : *2×7=14*

   (a) Internal structure of the Earth.

   (b) Chemical structures of sedimentary rocks.

   (c) Laboratory testing of rocks.

7. Explain any ***two*** of the following in 100 – 125 words each : *2×7=14*

   (a) Metamorphic Zones

   (b) An Axis of Symmetry

   (c) Volcanic Rocks