

Printed Pages: 02

Sub Code: NCE404

Paper Id: 100409

Roll No. XXXXXXXXXX

**B. Tech.**  
**(SEM 4) THEORY EXAMINATION 2017-18**  
**ENGINEERING GEOLOGY**

*Time: 3 Hours**Total Marks: 100***Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

- 1. Attempt all questions in brief.** **2 x 10 = 20**
- a. What is Grouting?
  - b. Define Sub-Surface and Super-Surface structures.
  - c. What do you mean by texture and structure of earth?
  - d. What are the different types of Rocks?
  - e. What do you mean by Dip?
  - f. What is difference between Aquifer and Aquiclude?
  - g. What do you mean by Folds?
  - h. What do you mean by strike?
  - i. What is difference between Artesian and Non-Artesian well?
  - j. What are unconformities?

**SECTION B**

- 2. Attempt any *three* of the following:** **10 x 3 = 30**
- a. Define minerals. Explain the detailed study of all rock forming minerals.
  - b. Write a note on different seismic zones of India.
  - c. What is Landslide? What are its causes? Also give the preventive measures of Landslides?
  - d. Describe Faults and classify faults on the basis of apparent movement of disrupted blocks.
  - e. Write a note on
    1. Tectonic movement
    2. Reservoir Induced Seismicity

**SECTION C**

- 3. Attempt any *one part* of the following:** **10 x 1 = 10**
- a. What do you mean by Geo-physical Exploration? Briefly describe its principles for sub-surface structures.
  - b. What do you mean by Lamination Bedding? Explain its effect on Topography.
- 4. Attempt any *one part* of the following:** **10 x 1 = 10**
- a. Write a note on depletion of ground water in our country.

b. What are seismic waves? Describe the origin and characteristics of seismic waves.

**5. Attempt any one part of the following: 10 x 1= 10**

- a. What are the causes of Earthquake? Classify the Earthquake?
- b. Describe the geological considerations and problems encountered for a selection of dam site.

**6. Attempt any one part of the following: 10 x 1= 10**

- a. Describe sedimentation and metamorphism. List of various types of textures and structures evolved due to metamorphic process
- b. Discuss underground provinces of India and its role as geological hazard.

**7. Attempt any one part of the following: 10 x 1= 10**

- a. Explain Lamination, Stratification, cross and graded beddings and where do they occur.
- b. Write a note on different Pozzolonic materials.

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