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# B. TECH. (SEM IV) THEORY EXAMINATION 2018-19 ENGINEERING GEOLOGY

Time: 3 Hours Total Marks: 100

Note: Attempt all Sections. If require any missing data; then choose suitably.

#### **SECTION A**

## 1. Attempt all questions in brief.

 $2 \times 10 = 20$ 

- a. What do you understand by building stones?
- b. Define meanderings and ox-bow lake.
- c. Write textures and mineralogical composition of Granite.
- d. What is a hinge point of a fold?
- e. Describe formation of folds.
- f. What is meant by RMR?
- g. Name the a few secondary tectonic plates.
- h. What is land slide?
- i. What are the common shape of tunnel?
- j. What is over break in tunneling?

#### **SECTION B**

## 2. Attempt any *three* of the following:

10x3=30

- a. Give a detailed account on the physical properties of Feldspar group of minerals.
- b. Write an essay on engineering properties distribution and uses of granite.
- c. What is plate tectonics? describe in detailed and explain its relation to earthquake.
- d. Describe with neat sketches the various classification of faults.
- e. Give an account of geological investigation of Reservoir.

#### **SECTION C**

## (Each question of this section carry 10 Marks)

## 3. Attempt any *one* part of the following:

- a. Explain the true dip and apparent dip with neat diagram.
- b. Define weathering. Discuss the process of weathering and its products.

## 4. Attempt any *one* part of the following:

- a. Describe in detail the distinguishing features of igneous, sedimentary and metamorphic rocks
- b. What is a joint? Explain the classification of joints. Add a note on unconformities.

## 5. Attempt any *one* part of the following:

- a. Discuss the causes and effects of earthquakes. Describe different classification of earthquakes.
- b. Write the various physical properties of the minerals with examples

## 6. Attempt any *one* part of the following:

- a. Discuss the causes for landslides. Write the classification of landslides
- b. Explain the preventive measures to control the landslides

#### 7. Attempt any *one* part of the following:

- a. Describe various geological factors that may cause trouble in the construction of a dam.
- b. Give an account of causes of inherent weakness in rocks. How rock qualities could be improved by artificial treatment.