



PAPER ID : 0052

TCE-404

Printed Pages : 2

Paper ID and Roll No. to be filled in your Answer Book

Roll No.

--	--	--	--	--	--	--	--	--	--

B. Tech.

(SEM. IV) (EVEN SEM.) EXAMINATION, 2013

ENGINEERING GEOLOGY

Time : 2 Hours]

[Total Marks : 50

Note : Attempt **all** the questions.

1 Answer any **two** parts of the following : $5 \times 2 = 10$

- (a) What is mineral ? Give reasons why coal cannot be called a mineral. Name and write in short important physical properties used to identify rock forming minerals.
- (b) Giving reasons, write on suitability of the following rocks for their uses in various engineering works:
 - (i) Slate
 - (ii) Granite
 - (iii) Massive Sandstone
 - (iv) Quartzite
 - (v) Marble.
- (c) What are the factors affecting for selection of building stones as engineering material ?

2 Answer any **two** parts of the following : $5 \times 2 = 10$

- (a) What is a rock ? Give a classification of rocks. Write in short their mode of formation.
- (b) What is an Unconformity ? Give a simple classification of unconformity.

- (c) What are the engineering properties of rocks ?
Describe any one in detail.

3 Answer any **two** parts of the following : $5 \times 2 = 10$

- (a) Define the terms 'dip' and 'strike' of a bed. Show with the help of sketches, the importance of dip and strike in sketches, the importance of dip and strike in hill slope instability (landslide) / stability.
- (b) Enumerate types of joints and their importance in projects.
- (c) Explain principles of any two methods of geophysical exploration.

4 Answer any **two** parts of the following : $10 \times 2 = 20$

- (a) With the help of diagram, define the terms 'focus' and 'epicenter' of an earthquake. What are the causes of earthquakes ?
- (b) Define an Aquifer. Explain the formation of artesian condition.
- (c) Describe Geological investigations of a dam site and their site selection governing factors.