

Printed Pages : 2



NCE-404

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

PAPER ID : 100412

Roll No.

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B. Tech.

(SEM. IV) THEORY EXAMINATION, 2014-15
ENGINEERING GEOLOGY

Time : 2 Hours]

[Total Marks : 50

Note: (1) Attempt all questions.

(2) Marks are indicate against each question.

(3) Assume any data suitably, if required.

1 Attempt any four parts of the following [3×4=12]

- (a) What are different rock forming minerals?
- (b) What is a building stone? Outline the properties and requirements of building stones.
- (c) Define minerals. Define following physical properties of minerals :
 - (i) Fracture (ii) Cleavage (iii) Streak (iv) Hardness
- (d) Explain the following (i) Strike (ii) Graded bedding (iii) Current bedding (iv) Stratification.
- (e) Explain true dip and apparent dip.
- (f) Explain various forms in which Igneous rocks occur in nature with the help of neat sketches.

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[Contd...

- 2 Attempt any four parts of the following : [3.5×4=14]
- (a) Discuss the process of formation of minerals in nature. Which group of minerals is most common in occurrence? Discuss their salient features.
 - (b) Distinguish between joints and faults.
 - (c) What are folds ? Describe various types of folds.
 - (d) Explain how sedimentary rocks are formed. Describe various structures present in the rocks.
 - (e) What is metamorphic rock? Describe the various agents of metamorphism.
 - (f) Define the following .(a) Outlier and inliers
(b) Unconformity (c) Columnar jointing.
- 3 Attempt any two parts of the following [6×2=12]
- (a) What are landslides? Describe their types, causes and preventive measures.
 - (b) Define earthquakes and Tsunamies. Give a detailed account of tectonic earthquakes.
 - (c) Discuss ground water hazards in engineering projects.
- 4 Attempt any two parts of the following [6×2=12]
- (a) Give an account of geological investigations of dams and reservoirs.
 - (b) Explain the following terms : (a) Grouting (b) Geological action of ground water.
 - (c) Describe electrical resistivity method of site investigation.