



Printed Pages : 2

TCE – 404

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

PAPER ID : 0052

Roll No.

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B. Tech.

(SEM. IV) EXAMINATION, 2006-07

ENGINEERING GEOLOGY

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

- 1 Attempt any **four** parts of the following : **4×5=20**
- Give an account of the structure of the earth.
 - Define mineral. Describe the following physical properties of minerals with example : (i) Fracture (ii) cleavage. (iii) Hardness
 - What is a building stone? Outline the properties and requirements of building stones.
 - Describe the properties and requirements of quality road metals.
 - Give a brief account of the importance of geology in civil engineering. Explain your answer by giving suitable example.
 - Discuss which features indicate suitability of rocks as engineering materials.
- 2 Attempt any **two** parts of the following : **10×2=20**
- Enumerate the important igneous rocks and give their distinguishing characters.
 - Explain how are the sedimentary rocks formed? Describe the various structures present in the rocks.
 - What is metamorphic rock? Discuss the various agents of metamorphism.

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- 3** Attempt any **four** parts of the following : **4×5=20**
- a) How are folds classified? Describe different types of folds.
 - b) What are joints? Classify and describe various types of joints.
 - c) Describe the different types of unconformities and discuss the criteria for their recognition.
 - d) Discuss the effect of faulting on various engineering projects.
 - e) What are land slides ? Describe with neat well labelled sketch different parts of a typical slide.
 - f) Write notes on prevention, control and correction of land slides.
- 4** Attempt any **two** parts of the following : **2×10=20**
- a) Explain, Earthquake magnitude, Earthquake Intensity, Earthquake focus and Earthquake tening.
 - b) How are earthquake classified ? Explain their causes.
 - c) Describe the geological action of ground water.
- 5** Attempt any **two** parts of the following : **2×10=20**
- a) Discuss the influence of structural attitudes of sedimentary rocks on dam stability.
 - b) Give an account of the geological investigation of tanner routes.
 - c) Describe the electrical resistivity method of site investigation.
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