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CE – 405

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

PAPER ID : 0025

Roll No.

B. Tech.

(SEM. IV) EXAMINATION, 2006-07

ENGINEERING - GEOLOGY

Time : 2 Hours]

[Total Marks : 50

Note : Attempt *all* questions.

1 Attempt any **four** parts of the following : **3.5×4**

- a) What do you understand by building stones?
- b) Explain the true dip and the apparent dip.
- c) Define the following terms :
 - i) Hardness
 - ii) Lustre
 - iii) Fracture
 - iv) Cleavage
- d) What are common rock forming minerals?
- e) Explain the following :
 - (i) Stratification
 - (ii) Graded Bedding
 - (iii) Current Bedding
 - (iv) Strike
- f) What are different Rock Forming minerals?

2 Attempt any **four** parts of the following : **3×4**

- a) What are folds? Describe different types of folds.
- b) Distinguish between joints and faults.
- c) What is an unconformity? Describe different types of unconformities.

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- d) Discuss the following terms :
 - i) Focus
 - ii) Epicentre
 - iii) P waves
 - iv) S-waves
- e) What do you understand by seismic zones of India?
- f) Define earthquake and Tsunami.

3 Attempt any **two** parts of the following : **6×2**

- a) What are land slides? Discuss briefly their types, causes, and preventive measures.
- b) Explain the following
 - i) Aquifer
 - ii) Aquiclude
 - iii) Hydrologic cycle.
- c) Discuss ground water hazards in engineering projects.

4 Attempt any **two** parts of the following : **6×2**

- a) What are the geological investigations necessary for the alignment of hill roads?
- b) Give an account of geological investigation of Dam.
- c) What are the principles of geophysical exploration? Discuss any one method used for interpreting subsurface structures.