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 : 3.5x4
   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 : 3x4
   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.
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 Tsunamic.

3 Attempt any two parts of the following: 6x2
a) What are landslides? 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: 6x2
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.

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