

## POKHARA UNIVERSITY

Level: Bachelor

Semester – Spring

Year : 2010

Programme: BE

Full Marks: 100

Course: Engineering Geology

Pass Marks: 45

Time : 3hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

**Attempt all the questions.**

1. a) Define Engineering Geology. Explain in brief its importance to the civil engineer for the investigation of any infrastructure development. 8
- b) What is meant by 'Atmosphere'? How does it help us? What are its zones and their characteristic? 7
2. a) Define mineral. What are their physical properties? How do these properties help identifying different mineral? 8
- b) What is meant by rock cycle, and how does it represent the sequence of formation of three important types of rocks? 7
3. a) Classify and describe the various types of folds encountered in the crust of the earth. 8
- b) Discuss the engineering importance of fault. 7
4. a) Define unconformity and joints with clear sketches. 7
- b) Define landslide. Explain the types of landslides with clear sketches. 8
5. a) What are the uses of water-table maps for civil engineers? Differentiate between confined and unconfined aquifers. 8
- b) Explain the geological division of Nepal with their geological feature and distribution of rock. 7
6. a) What do you mean by site investigation? Explain about the geo-physical method. 8
- b) Write about the geological investigation for bridge. 7

7. Write short notes on **any two:** 2×5
- a) Risk and hazard
  - b) Types of wave developed during Earthquake
  - c) Field identification of rocks