

2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

III B.TECH I SEMESTER REGULAR EXAMINATIONS

ENGINEERING GEOLOGY
(CIVIL ENGINEERING)

NOVEMBER 2005

TIME: 3 HOUR
MARK: 80

ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

1. (a) Write short notes on:

- i. Cavitation
- ii. Corrasion
- iii. Corrosion as applied to weathering of rocks.

(b) What are the factors make river more effective geological agent. Explain.

2. (a) Write short notes on the following:

- i. Isomorphism and Pseudomorphism.
- ii. Effect of Weatheing on physical proproties of minerals.

(b) What are undesirable mineral from CIVIL Engineering point of view, why?

3. Describe the common structures/textures found in metamorphic rocks. Draw simple sketches.

4. "Shales, Schists and Lime stones are in general unsuitable form civil engineering point of view" - Explain why?

5. Explain the following terms with neat sketches.

- (a) Limbs, Axial plane , Axis, Crest and Trough of folds
- (b) Fault plane , Foot wall , Hanging wall , Throw and Heave
- (c) Joint plane ,Dip of joints and Strike of joints
- (d) Conformable beds and unconformable beds .

6. (a) Write an essay on the Geological time scale.

(b) Explain the principles of stratigraphy.

7. What are Landslides? Describe the Causes and effects of Landslides. Add a note on their preventative measures..

8. Write Short Notes on :

- (a) Different purposes of tunnels
- (b) Tunnels faulted strata
- (c) Tunnels in folded strata.