

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

P.D.D.C. Sem- I Remedial Examination March / April 2010

Subject code: X10602

Date: 03 / 04 / 2010

Subject Name: Engineering Geology

Time: 12.00 noon – 02.30 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain with examples what are aquifer, porosity, permeability and specific yield? 07
- (b) What is difference between primary and secondary structures of rocks? Also explain dip, strike and outcrop with neat figure. 07
- Q.2** (a) List the physical properties of mineral. And explain luster & form with their sub-types. Provide suitable examples. 07
- (b) What are different preventive measures of landslide? 07
- OR**
- (b) List the agents of weathering and explain mechanical weathering of rocks in detail. 07
- Q.3** (a) How are sedimentary rocks formed? What are clastic and non-clastic rocks? Explain with examples. 05
- (b) Explain with figure dykes and sills. 05
- (c) Classify following rocks. 04
- (i) Conglomerate, (ii) Gabbro, (iii) Limestone, (iv) marble, (v) Schist, (vi) Gneiss, (vii) Granite, (viii) Shale.
- OR**
- Q.3** (a) Describe types of fluvial deposits. 07
- (b) State the various methods of geophysical exploration. Add a note on seismic method. 07
- Q.4** (a) Agents of metamorphism. 04
- (b) Structures of metamorphic rocks. 06
- (c) Write short note on joints and vesicles in basalt. 04
- OR**
- Q.4** (a) Role of water in landslide. 05
- (b) Write a short note on mantle. 04
- (c) What are fold and unconformity? Describe parts of fold. 05
- Q.5** (a) Discuss what are the advantages & disadvantages, if igneous or sedimentary or metamorphic rocks are present at dam construction site. 07
- (b) Discuss the merit and demerit: when tunnel is passing thorough inclined sedimentary rocks. 07
- OR**
- Q.5** (a) Zonal distribution of subsurface water. 07
- (b) Explain different parts of fault and discuss effects of faulting on rocks. 07
