Total No. of Questions—**6**] [Total No. of Printed Pages—**4**

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S.E. (Civil Engg.) (I Sem.) EXAMINATION, 2010

ENGINEERING GEOLOGY

(2008 COURSE)

Time : Three Hours **Maximum Marks : 100**

N.B. :— (*i*) Answers to the two Sections should be written in separate answer-books.

(*ii*) Neat diagrams must be drawn wherever necessary.

(*iii*) Figures to the right indicate full marks.

(*iv*) *All* questions are compulsory.

SECTION I

1. (*a*) Explain Residual and secondary deposits in detail. Describe *two* rocks from each category/subcategory. [12]

(*b*) Explain in detail the cleavage and form as a physical property of minerals. [4]

Or

(*a*) How Gneissose and Schistose structures are developed during metamorphism ? Describe in detail. [8]

(*b*) Write note on various textures of Igneous rocks. [8]

2. (*a*) Describe in detail the landforms developed by river rejuvenation, river erosion with neat sketches. [10]

P.T.O.

(*b*) Explain in detail the Deccan trap basalt formation of India. [6]

Or

Write short notes on :

(*a*) Base level of erosion and Graded Profile. [4]

(*b*) Dykes in Deccan trap area. [4]

(*c*) Eparchean unconformity. [4]

(*d*) Vindhyan building stone. [4]

3. Write short notes on :

(*a*) Batholiths and Phacoliths [5]

(*b*) Strike and dip of rocks [4]

(*c*) Horst and Graben [4]

(*d*) Symmetrical and Asymmetrical folds. [5]

Or

(*a*) Explain with neat sketches the various tectonic features developed due to *Tensional forces*. [10]

(*b*) How a fold passes into a fault ? Describe with neat sketch. [4]

(*c*) List only various types of unconformities and describe '*Disconformity*' type of an unconformity. [4]

SECTION II

4. (*a*) What is remote sensing ? Explain its importance in Civil Engineering field. [4]

(*b*) What broad conclusions that may be drawn if : [3×4]

(*i*) Poor core recovery is obtained

(*ii*) Loss of drill water

(*iii*) Long pieces of core samples

(*iv*) Tachylytic basaltic core is disintegrated in nature ?

Or

(*a*) Write in brief on G.I.S. [4]

(*b*) Explain in detail the importance of Preliminary Geological Exploration (P.G.E.) in Civil Engineering Projects. [12]

5. (*a*) How are earthquakes caused ? Describe different types of seismic waves in detail. [8]

(*b*) Write in brief on types of Groundwater. [3]

(*c*) Explain requirements of a good building stone. [5]

Or

(*a*) Describe with the help of neat sketches different Geological conditions promoting natural discharge of water. [7]

(*b*) Describe in brief the various preventive measures against landslides. [5]

(*c*) Explain solid and liquid products of Volcanoes. [4]

6. (*a*) Describe in detail the difficulties to be faced while tunnelling through folded and faulted strata. [8]

(*b*) Treatment to be given to a dyke crossing dam alignment. [6]

(*c*) List only the various types of dam. [4]

Or

(*a*) Discuss in detail the studies to be carried out in reservoir areas of a dam. [8]

(*b*) Explain tunnelling conditions in Deccan trap region. [10]