



VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE
[Central Technological Institute, Maharashtra State]
Matunga, Mumbai-400 019

SEMESTER EXAMINATION April / May 2008 DATE OF EXAM 5th May 2008
SEMESTER & COURSE IV-S Y. B. Tech. (Civil) TIME 02.30 p.m. To 05.30 p.m.
TIME ALLOWED 3 HRS. MARKS 100
SUBJECT : ENGINEERING GEOLOGY

- Instruction:**
- 1) Question no. 1 is Compulsory.
 - 2) Solve any 4 questions out of remaining 6 questions.
 - 3) All Question carry equal marks i.e. 20 marks.
 - 4) Draw neat figure wherever necessary.
 - 5) Answer to questions should be grouped and written together.

- Q1. a. Define the following terms. (Any 5) (5)
- i) Stratigraphy
 - ii) Axis of Symmetry
 - iii) Aquifers
 - iv) Outcrop
 - v) Inliers and Outlier
 - vi) Epicenter
 - vii) Diastrophism
- b. What are the different common road aggregates? (4)
- c. Differentiate between
- i) Anticline and Syncline fold.
 - ii) Concordant igneous intrusion and discordant igneous intrusion (6)
- c. Define geology. Explain subdivision of geology. (5)
- Q2. a. Define mineral. What are the important physical properties of mineral that are commonly studied for identification? Explain them. (10)
- b. Write a note on
- i) Strike and dip of bed
 - ii) Subsidence (10)
- Q3. a. Define Earthquakes. Classify them. Explain the construction and working of instrument used for recording earthquakes (7)
- b. Explain briefly the geological work of river. (8)
- c. Classify the different rock forming minerals in a tabular form. (5)
- Q4. a. What are the different theories of origin? Explain briefly any one of them. (4)
- b. Write a short note on
- i) Geological Time scale
 - ii) Perched Water Table
 - iii) The internal structure of earth
 - iv) Economic importance of Archean system. (16)

- Q5. a. Enlist the different structures of Igneous rocks, Sedimentary rocks and metamorphic rocks. . Explain briefly the structures of any one of type of rock. (10)
- b Give a general account of geological characteristics that have to be known for location of dam. (10)
- Q6. a. For a given geological map
- Draw topographical section X-Y
 - Write the geography of the map.
 - Write the geology of the map illustrating the geology of the older series and younger series, nature of strata, the order of superposition and thickness. (15)
- b. Write a short note on Principle of Stratigraphy. (5)
- Q7. a. Why the precise geological investigation is needed for the tunneling. (10)
- b What are the different methods of geophysical investigation. Explain any one of them. (10)

