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[4757]-104

S.E. (Civil) (I Sem.) EXAMINATION, 2015

ENGINEERING GEOLOGY

(2008 PATTERN)

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.

SECTION I

1. Explain with suitable examples Textures of Igneous Rocks due to their mode of origin. [16]

Or

(a) Describe parallel Textures of Metamorphic rocks. [8]

(b) What is weathering ? Describe types of weathering. [8]

2. (a) Describe physiographic divisions of India. Write a note on changes of climate during Gondwana period. [8]

(b) What is Rejuvenation ? Explain any *two* features resulting from the rejuvenation. [8]

P.T.O.

Or

- (a) State and explain general principles of stratigraphy. [8]
- (b) Describe with neat sketches Landforms resulted due to erosion by River. [8]

3. (a) What are the Faults ? Describe different types with neat sketches. [10]
- (b) Write a note on Concordant Igneous Intrusions. [8]

Or

- (a) Write a note on Batholiths and Dykes. [9]
- (b) Describe Orogenesis and Epeirogenesis. [9]

SECTION II

4. (a) Describe in detail subsurface Geological Exploration. [10]
- (b) Write a note on Remote sensing in Civil Engineering. [6]

Or

- (a) What observations and precautions are necessary during drilling ? [8]
- (b) Describe in detail Geological activity of Groundwater. [8]

5. (a) What are the Earthquakes ? How are they caused ? Explain P-waves and S-waves. [10]
- (b) Write a note on confined aquifers and Perched aquifers. [6]

Or

(a) What are the Landslides ? Discuss preventive measures. [10]

(b) Write a note on Indian Building stones. [6]

6. (a) What problems may have to be faced while tunneling in Tectonic areas ? [10]

(b) Discuss the problems that can occur due to presence of fault along dam alignment and treatment to be given. [8]

Or

(a) Discuss in detail Tunneling conditions in Deccan Trap Basalts and associated features. [13]

(b) Write a note on Geological conditions suitable for Reservoir site. [5]