

Total No. of Questions—6]

[Total No. of Printed Pages—4+1

Seat No.	
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[4657]-4

S.E. (Civil) (First Semester) EXAMINATION, 2014

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) Assume suitable data, if necessary.

SECTION I

1. 'Igneous rocks show wide variety of textures due to their different mode of origin'. Explain with suitable examples. [16]

Or

(a) Describe textures formed by 'Dynamothermal' metamorphism. [8]

(b) What is weathering ? Describe in detail 'Disintegration' and 'decomposition' processes. [8]

P.T.O.

2. (a) What is 'Rejuvenation' ? Describe any *two* features resulting from rejuvenation with neat sketches. [8]
- (b) Describe in detail 'Physiographic divisions of India'. Write a note on importance of 'Dharwar' rocks. [8]

Or

- (a) State and explain general principles of 'Stratigraphy'. [8]
- (b) Explain with neat sketches 'Erosional' and 'Depositional' work of rivers. [8]
3. (a) How are rocks folded ? Describe different types of 'Folds'. Explain, how fold passes into the 'Fault'. [10]
- (b) Write a note on 'Discordant' igneous intrusions. [8]

Or

- (a) What structural features are developed due to 'Concordant' igneous intrusions ? [9]
- (b) Write a note on 'Mountain Building' activities. [9]

SECTION II

4. (a) Discuss in detail drilling as a method of Subsurface Geological Exploration giving its limitations. [10]
- (b) Write a note on applications of remote sensing in Civil Engineering. [6]

Or

- (a) Describe Geography, Geology and History of the map attached herewith (Fig. No. 1) [10]
- (b) Write a note on quality and quantity of returning drill water. [6]
5. (a) What are the earthquakes ? How are they caused ? Explain seismic waves. [10]
- (b) Discuss influence of texture and structure of rocks on groundwater storage. [6]

Or

Write notes on the following :

- (a) Causes of landslides and their preventive measures. [10]
- (b) Factors governing bearing capacity of rocks. [6]

6. (a) What are common defects occurring at dam sites ? Explain treatment to be given to these defects. [8]
- (b) What problems are to be faced while tunneling through folded and faulted strata ? [6]
- (c) State importance of Pilot-Cut along dam alignment. [4]

Or

- (a) Discuss in detail about difficulties may have to be faced while tunneling through Deccan Trap basalts. [13]
- (b) Write a note on geological conditions suitable for Reservoir site. [5]

4. (a)

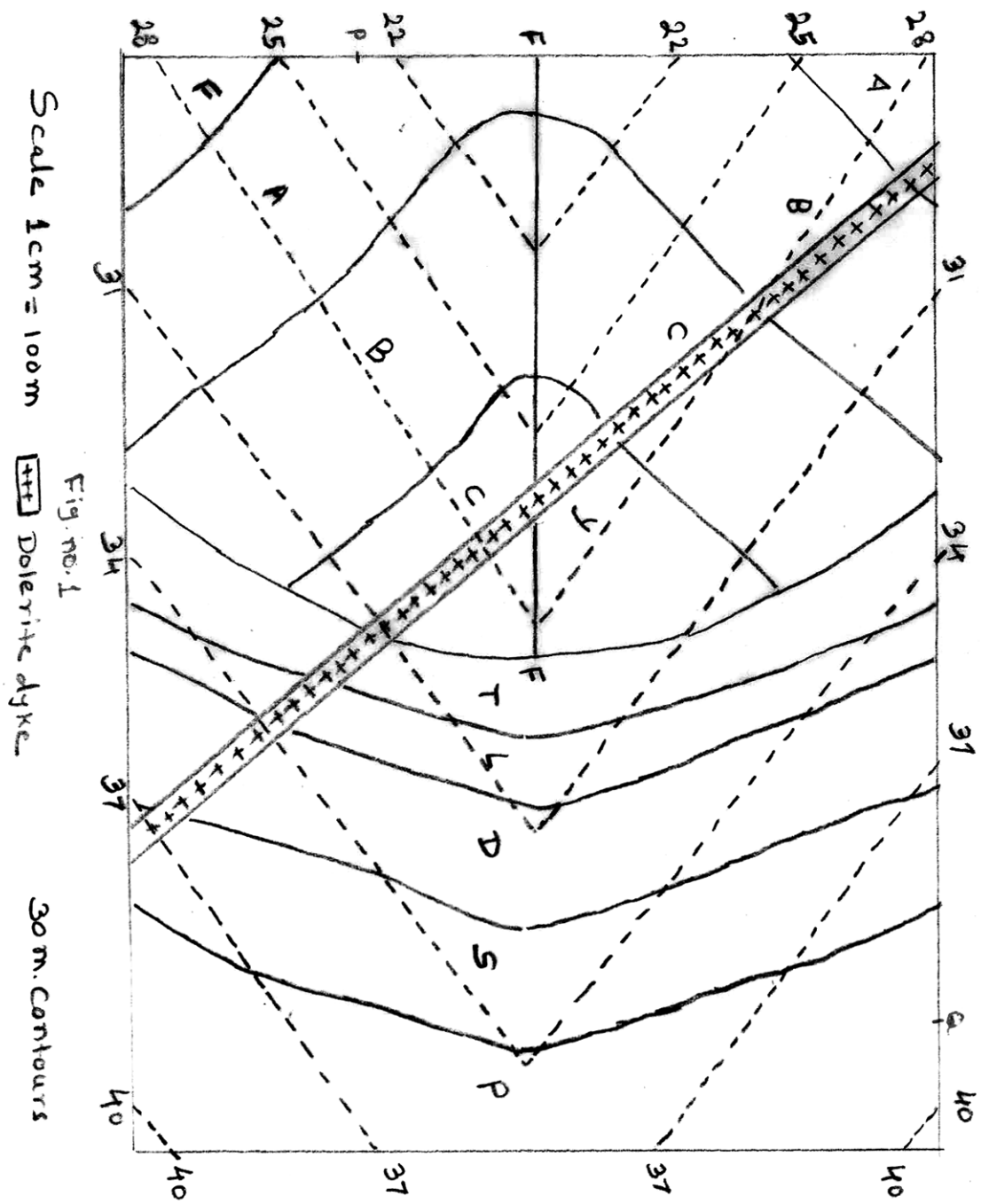


Fig. 1