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Total No. of Pages : 3

Seat No.	

T.E. (Civil) (Semester - VI) (New) Examination, May - 2018

ENGINEERING GEOLOGY

Sub. Code : 66876

Day and Date : Saturday, 12- 5 - 2018 **Total Marks :100**

Time : 2.30 p.m. to 5.30 p.m.

Instructions :
1) **All questions are compulsory.**
2) **Answer to the two sections must be written in one and same answer book.**
3) **Figures to the right indicate full marks.**

SECTION - I

Q1) Attempt any two of the following.

a) Describe various processes involved in the geological work of river with respect to erosion. [9]

b) What is metamorphism? What are types of metamorphism? Describe in detail the thermal metamorphism. [9]

c) Define fold. Describe with the help of neat sketches Limb, Crest and Trough, Hinge line and Axial plane of the fold. Give in brief Civil Engineering significance of fold. [9]

Q2) Answer any two of the following.

a) What do you understand by the term Igneous rock? State with the neat sketches the meaning of the term of Plutonic, hypabyssal & Volcanic Rocks. Give suitable examples. [8]

b) Explain in brief various processes of chemical weathering. [8]

c) Write a brief account of [8]
   i) Topography of a given geological map
   ii) Residual deposits

Q3) Write short notes on: [16]

a) Scope of Engineering Geology

b) Products of volcanoes.

c) Stratification

d) Structures of Igneous Rocks

P.T.O.

SECTION - II

Q4) Attempt any two of the following.

a) What do you mean by Reservoir Induced Seismicity? Discuss in detail the theories of RIS. **[9]**

b) Discuss in detail the role geological conditions that influence the design, cost & stability of tunnel. **[9]**

c) With the help of neat sketches describe the different types of dams. Explain the forces acting on the dam. **[9]**

Q5) Attempt any two of the following.

a) What are the various types of landslides? Describe in detail the preventive measures of landslides. **[8]**

b) Data obtained from a drill hole at foundation site is as follows, **[8]**

i) Bore hole started at Top R.L: 375m.

ii) Bore hole ends at R.L: 325m.

iii) Length of each piece of core recorded between 369 m to 366m is as follows, 12,14,22,13,16,18,15,8,9,17,15,20,14,22,16,18,20,17. All piece lengths are in cm.

Find out: 1) Total length of core recovered

2) Core recovery

3) Core loss

4) RQD

c) What are the various sources of ground water? Explain in detail the zones of ground water? **[8]**

Q6) Write short notes on. **[16]**

a) Seismograph

b) Reqirements of good building stones

c) Observations during drilling

d) Dams on folded strata

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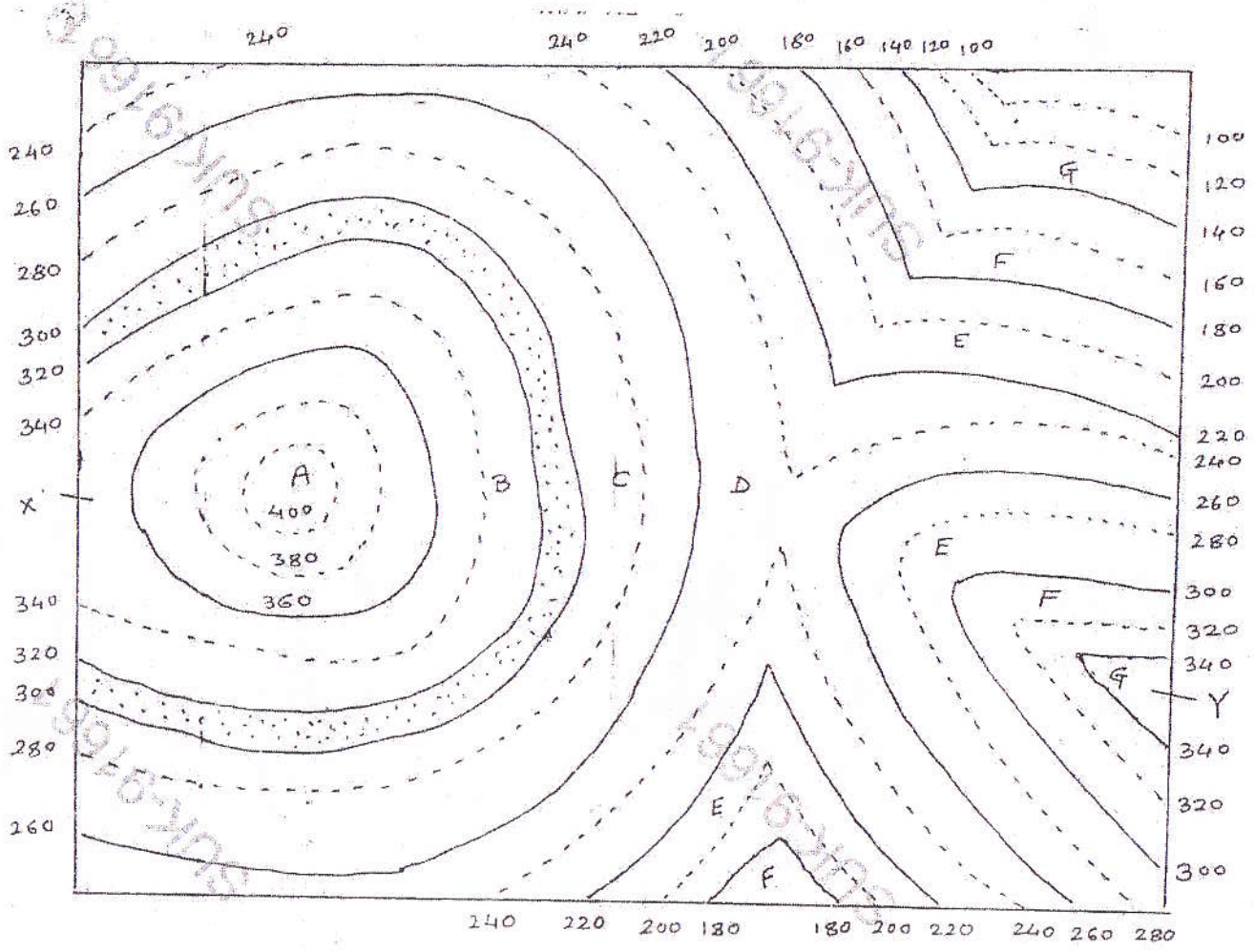

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