

R13

Code No: 115AA

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech III Year I Semester Examinations, November/December - 2016****ENGINEERING GEOLOGY****(Civil Engineering)****Time: 3 hours****Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) Define Weathering and its types. [2]
- b) Mention disadvantage of clay soil. [3]
- c) Mention the physical properties of Quartz. [2]
- d) Discuss the classification of igneous rock. [3]
- e) Differentiate fault zone and shear zone. [2]
- f) List out different causes of Landslide. [3]
- g) Mention the different types of aquifers. [2]
- h) What are the different types of Dams? [3]
- i) What is impact of water table on tunneling? [2]
- j) Discuss different types of tunnels. [3]

PART - B**(50 Marks)**

- 2.a) With a neat sketch, explain the erosional action of Wind. [5+5]
 - b) Mention different river erosional processes.
- OR**
- 3.a) With a suitable sketch, explain the rock cycle. [5+5]
 - b) Give the classification of different types of drainage patterns.
4. With Suitable example, explain the physical properties of minerals. [10]
- OR**
- 5.a) Give the physical properties of Mica. [5+5]
 - b) Draw the mechanical structure of sedimentary rock.
- 6.a) Mention the different classification of earthquake. [5+5]
 - b) Give the classification of fold depending on its axial plane.
- OR**
- 7.a) Give the detailing of earthquake measurement using seismograph. [5+5]
 - b) Draw the sketch of different types of fold.

8.a) With a suitable sketch, explain the electrical resistivity survey. [5+5]
b) Mention the seismic survey methods.

OR

9. Discuss in detail, different geophysical prospecting methods. [10]

10.a) Discuss different purposes of tunneling. [5+5]
b) Explain in detail the geological consideration of tunneling.

OR

11.a) Mention the topographical consideration for dam construction and explain.
b) Mention the advantages of RS and aerial photography for different civil engineering surveying. [5+5]

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