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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year I Semester Supplementary Examinations November-2020
ENGINEERING GEOLOGY
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a Explain the significance of geological studies to solve civil engineering problems. **7M**
b What are the various processes acting on the surface of the earth? Explain. **5M**

OR

- 2 a Enlist and explain the various geological activities of wind. **6M**
b Write briefly on weathering process. **6M**

UNIT-II

- 3 a Describe the physical properties which depend on light. **6M**
b Give the chemical composition, occurrence and engineering behavior of the clay minerals. **6M**

OR

- 4 a Explain the physical properties for the following minerals groups **6M**
i) Garnet ii) Mica
b Describe any two important rock forming minerals from the civil engineering point of view. **6M**

UNIT-III

- 5 a Enlist and explain the structures of the sedimentary rocks with neat sketches. **6M**
b Explain the metamorphic processes in detail. **6M**

OR

- 6 a Enlist and explain the various igneous forms. **4M**
b Describe the granitic rock with reference to civil engineering importance. **8M**

UNIT-IV

- 7 a What are landslides? Explain the causes and methods to be adopted to control them. **8M**
b Write briefly on magnitude of earthquake. **4M**

OR

- 8 a Explain the classification of folds with neat sketches. **6M**
b Describe the various parts of the faults with neat sketches. **6M**

UNIT-V

- 9 a Describe the various parts of the dams and classification of the dams. **6M**
b Explain the sliding, uplift and elastic rebound problems at a dam site. **6M**

OR

- 10 a What is a tunnel? Explain the terminology applied in tunnel with neat sketch. **6M**
b Explain the geological investigations required for the selection of tunnel alignment. **6M**

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