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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
 (AUTONOMOUS)

B.Tech III Year I Semester Regular & Supplementary Examinations Nov/Dec 2019
ENGINEERING GEOLOGY
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units $5 \times 12 = 60$ Marks)**UNIT-I**

- 1 a No structure however is better than its foundation and the material it is made of - **7M**
 Justify.
 b Explain briefly volcanism. **5M**

OR

- 2 a Enlist and explain the various landforms formed by the action of glaciers. **6M**
 b Describe in brief the important geological actions of river. **6M**

UNIT-II

- 3 a Explain the important physical properties of the minerals to be studied from the point of civil engineering. **6M**
 b Describe the following minerals. **6M**
 i) Quartz ii) Calcite iii) Garnet.

OR

- 4 a Explain the following mineral groups. **6M**
 i) Feldspar ii) Olivine.
 b Distinguish the following minerals from one another. **6M**
 i) Hornblende and Augite ii) Kyanite and mica iii) Quartz and Calcite.

UNIT-III

- 5 a Explain the classification of rocks and their characteristics. **6M**
 b Enlist and explain the argillaceous rocks. **6M**

OR

- 6 a Explain the structures of the metamorphic rocks **4M**
 b How do you distinguish from following one from the other **8M**
 i) Limestone and Marble ii) Sandstone and Quartzite
 iii) Shale and Slate iv) Schist and Gneiss

UNIT-IV

- 7 a Define soil. How is it formed? Explain various types of soils occurring in India. **8M**
 b Give the classification of unconformities. **4M**

OR

- 8 a Explain various investigations used in groundwater exploration. **6M**
 b Enlist and explain the terminology used in earthquakes. **6M**

UNIT-V

- 9 a Describe the various investigations to be carried out for the protection of reservoir life. **6M**
 b Explain the importance of joint in the tunnel excavations. **6M**

OR

- 10 a Explain the problems likely to be encountered by the tunnels through folded and faulted rocks. **6M**
 b Describe the geology of the Nagarjuna sagar dam site in Andhra Pradesh. **6M**

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