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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year I Semester Supplementary Examinations December-2021
ENGINEERING GEOLOGY
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Define geology and explain different branches of geology. L1 6M
b Write in detail about the structure of the earth and composition with a neat diagram L2 6M

OR

- 2 a Explain the scope and importance of geology in civil engineering works. L1 6M
b Explain the process associated with river. Write their engineering significance. L2 6M

UNIT-II

- 3 Describe the following minerals. Mention their chemical composition and add a note on how they are identified in rocks. L1 12M
i) Quartz. ii) Orthoclase Feldspar. iii) Garnet. iv) Biotite mica.

OR

- 4 Write short notes on the following L2 12M
i) Moh's scale of hardness ii) Polymorphism iii) Isomorphism

UNIT-III

- 5 a What is metamorphism? Discuss the various agents of metamorphism. L1 6M
b Why heat is considered the most important agent of metamorphism. L2 6M

OR

- 6 a Write detailed note on Rock cycle. L1 6M
b Write detailed note on Magma. L2 6M

UNIT-IV

- 7 a What is an anticline? How do you differentiate asymmetrical anticline from symmetrical Anticlines? L1 6M
b What is a monocline? How is an isoclinal fold different from a monocline? L2 6M

OR

- 8 a What are landslides? Describe the causes and methods to prevent them. L1 6M
b How are landslides measured? L2 6M

UNIT-V

- 9 a Explain the geological structural controls on selection of dam site. L1 6M
b Explain the methods to control reservoir silting. L2 6M

OR

- 10 a Explain the geological structural controls in tunneling. L1 6M
b Nagajunasagar dam as a case history, explain the geological analysis. L2 6M

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