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

B.Tech II Year II Semester Supplementary Examinations July-2021

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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| 1 | a Define weathering of rock. | 2M |
| | b Discuss cleavage and diaphaneity | 2M |
| | c Define texture & structure. | 2M |
| | d Define Strike and dip. | 2M |
| | e What are the various forces acting on dam? | 2M |

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

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|---|---|----|
| 2 | a Distinguish between weathering and erosion. | 5M |
| | b Describe the various process of weathering. | 5M |

OR

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| 3 | How is Geology related to Engineering? Discuss the scope of application of geological knowledge in the planning work. | 10M |
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UNIT-II

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| 4 | a Explain why the study of minerals by physical properties in advantage. | 5M |
| | b Write the physical properties of (i) Garnet. (ii) Hematite. | 5M |

OR

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| 5 | Describe in detail the physical properties of minerals. Add note on the feldspar group of minerals. | 10M |
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UNIT-III

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| 6 | What are extrusive and intrusive igneous rocks? Describe their salient features. | 10M |
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OR

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| 7 | a Discuss the various agents of metamorphism. | 5M |
| | b Why heat is considered the most important agent of metamorphism? | 5M |

UNIT-IV

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| 8 | a Explain various investigation uses in groundwater exploration | 5M |
| | b Explain the engineering significance of ground water | 5M |

OR

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| 9 | Explain the different types of folds with the help of neat sketches. | 10M |
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UNIT-V

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| 10 | What are dams and reservoirs? Explain the purpose of construction of major dams and reservoirs in India. | 10M |
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OR

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| 11 | What are the various geological factors to be considered for the construction of tunnels? Explain in detail with examples. | 10M |
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END