

Reg. No:

--	--	--	--	--	--	--	--	--	--

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year II Semester Regular Examinations October-2020****ENGINEERING GEOLOGY**

(Civil Engineering)

Time: 3 hours

Max. Marks: 60

PART-A

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

- | | | |
|----------|---|-----------|
| 1 | a Write a note on weathering agents. | 2M |
| | b Discuss cleavage and diaphaneity. | 2M |
| | c Define texture and structures. | 2M |
| | d Explain types of joints. | 2M |
| | e What are the various forces acting on dam? | 2M |

PART-B

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

UNIT-I

- | | | |
|----------|---|-----------|
| 2 | a Explain the scope and importance of geology in civil engineering works. | 5M |
| | b How do civil engineers determine the extent of weathering pattern in major in major civil engineering constructions? | 5M |

OR

- | | | |
|----------|--|-----------|
| 3 | a Define geology and explain different branches of geology. | 5M |
| | b What are the differences between chemical weathering and physical weathering? | 5M |

UNIT-II

- | | | |
|----------|--|-----------|
| 4 | a Explain the important physical properties of minerals that are commonly studied for their identification. | 5M |
| | b Write the physical properties of (i) Garnet. (ii) Hematite. | 5M |

OR

- | | | |
|----------|---|-----------|
| 5 | a Define Hardness, Fracture and Specific gravity. | 5M |
| | b Mention the physical properties of the following minerals used to identify in rocks.
i) Quartz. ii) Orthoclase Feldspar. | 5M |

UNIT-III

- | | | |
|----------|--|-----------|
| 6 | a Write about the occurrence of granite. | 5M |
| | b Explain the structures and textures of sedimentary rocks. | 5M |

OR

- | | | |
|----------|--|-----------|
| 7 | a What is metamorphism? Discuss the various agents of metamorphism. | 6M |
| | b In what way the granite, limestone and marble are used based on their civil engineering applications. | 4M |

UNIT-IV

- | | | |
|----------|---|-----------|
| 8 | a Explain the different types of folds with the help of neat sketches. | 6M |
| | b What is a water table? What are types of ground water. | 4M |

OR

- | | | |
|----------|--|-----------|
| 9 | a Explain briefly about Electrical Resistivity method | 5M |
| | b Explain the engineering significance of ground water. | 5M |

UNIT-V

- | | | |
|-----------|--|-----------|
| 10 | a Enumerate the various types of landslides and explain the causes of landslides. | 5M |
| | b What are the geological considerations necessary in the selection of dam site? | 5M |

OR

- | | | |
|-----------|---|-----------|
| 11 | a Explain the geological factors influencing water tightness and life of reservoirs. | 5M |
| | b Explain the terms that are used in tunnels with neat sketches? Explain the purpose of tunneling. | 5M |

END