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

B.Tech IV Year I Semester Regular & Supplementary Examinations Feb-2021
NON- CONVENTIONAL ENERGY RESOURCES
(Common to All)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Define conventional and non-conventional Energy with Examples. 6M
b Outline the merits and demerits of Conventional Energy Sources. 6M

OR

- 2 Describe Renewable Energy Scenario in Andhra Pradesh. 12M

UNIT-II

- 3 a Explain in brief about solar radiation. 6M
b Name the different type of collectors and brief them. 6M

OR

- 4 a Explain solar photo voltaic conversion process in detail. 6M
b Illustrate the working of solar desalination system. 6M

UNIT-III

- 5 a Explain the process of wind formation. 6M
b List the merits and demerits of wind energy. 6M

OR

- 6 Elaborate the factors to be considered in the selection of site for wind energy. 12M

UNIT-IV

- 7 a What is biomass gasifier? Write its gasification reactions. 6M
b How do you classify the gasifiers? Explain anyone in detail. 6M

OR

- 8 a What are the factors affecting the generation of bio gas? 6M
b Explicate various steps involve in the production of Ethanol. 6M

UNIT-V

- 9 Explain the working of fuel cell and their applications. 12M

OR

- 10 a What is the geothermal energy? Explain its extraction process. 6M
b Explain Geothermal binary cycle power plant with neat diagram. 6M

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