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

M TECH II Year I Semester Regular Examinations Nov/Dec 2019

DESIGN OF SOLAR AND WIND SYSTEMS

(Thermal Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

1 What are the alternate sources of energy? Explain any three in detail. 12M

OR

2 a Mention the applications of non-concentrating type collectors. 6M

b What are the advantages of non-conventional energy sources? 6M

UNIT-II

3 Mention the different types of Nuclear energy technologies. Explain 12M

OR

4 a What are the advantages of nuclear energy? 6M

b Discuss in detail about Nuclear fusion and its applications 6M

UNIT-III

5 Classify wind energy conversion systems and explain. 12M

OR

6 Explain the availability of Geothermal energy and its sources in India. 12M

UNIT-IV

7 Describe any two biological methods of hydrogen production. 12M

OR

8 Explain in detail about hydrogen storage methods. 12M

UNIT-V

9 Describe the construction and working of thermo electric generator with a neat sketch. 12M

OR

10 Write about photovoltaic cell and its advantages. 12M

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