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

B. Tech IV Year II Semester Advanced Supplementary Examinations October-2020
POWER PLANT ENGINEERING
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Discuss about the resources for power development in India? 6M
b Explain the layout of steam power plant with neat sketch. 6M

OR

- 2 a Draw the layout of hydel power plant and explain. 6M
b How does a thermal power plant pollute air? 6M

UNIT-II

- 3 a What are the types of coal? Brief them. 7M
b What are the properties of coal? 5M

OR

- 4 a Analyze the pollutants and how they are measured. 6M
b Illustrate the working of an electrostatic precipitator. 6M

UNIT-III

- 5 a What is an IC engine? Explain its applications. 6M
b How would you classify IC engines? Brief them. 6M

OR

- 6 a Classify the gas turbines? Write the major field of application of gas turbines? 6M
b List out few fuels for Gas turbine and why these fuels are used for gas turbine? 6M

UNIT-IV

- 7 a Differentiate between storage and pondage. 6M
b Classify Hydroelectric power plants. 6M

OR

- 8 a Illustrate high head power plant with a neat sketch. 6M
b Compare base load plant with peak load plant. 6M

UNIT-V

- 9 a Discuss true chain reaction. 6M
b Enumerate the requirements of fission process. 6M

OR

- 10 a Summarize the radiation hazards on living beings? 6M
b Define shielding and its purpose. 6M

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