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Sixth Semester B.E. Degree Examination, June/July 2023

Energy Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. List and explain the factors to be considered while selecting a site of steam power plant. (10 Marks)
b. With a neat sketch explain steam power plant. (10 Marks)

OR

- 2 a. List and explain the types of fuels used in thermal power plant. (10 Marks)
b. Write any five advantages and disadvantages of pulverized coal. (10 Marks)

Module-2

- 3 a. Write a note on : i) Chimney draught ii) Cooling towers. (10 Marks)
b. Explain any two accessories of steam generators. (10 Marks)

OR

- 4 a. List and explain the applications of Diesel engines in power field. (10 Marks)
b. With a neat sketch, explain Diesel plant layout. (10 Marks)

Module-3

- 5 a. Write a note on : i) Nuclear Fission ii) Nuclear Fuels. (10 Marks)
b. List and explain the desired properties of coolant used in nuclear reactors. (10 Marks)

OR

- 6 a. Explain : i) Hydrograph ii) Flow duration curve (10 Marks)
b. With a neat sketch explain high head plant and medium head plant. (10 Marks)

Module-4

- 7 a. List and explain the application of solar energy. (10 Marks)
b. With a neat sketch, explain flat plate collectors. (10 Marks)

OR

- 8 a. Explain the major problems associated with wind power. (10 Marks)
b. With a neat sketch explain wind mill. (10 Marks)

Module-5

- 9 a. With a neat sketch explain closed cycle system of OTEC. (10 Marks)
b. Write the advantages and disadvantages of Tidal power plants. (10 Marks)

OR

- 10 a. List and explain the factors affecting biogas generation. (10 Marks)
b. With a neat sketch, explain liquid dominated geothermal power system. (10 Marks)