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Total No. of Printed Pages: 1

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B. Tech ME (Semester – 6th)
POWER PLANT ENGINEERING
Subject Code: BMECD1613
Paper ID: 18112332

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. What are commercial and non - commercial sources of energy?
- b. What is the function of Economiser and Air Pre-heaters?
- c. How wind power can be converted into electric power?
- d. What are the different components of a nuclear power plant?
- e. What are load curves?
- f. What is fluidized bed combustion in boilers?
- g. What is geothermal energy?
- h. Define fuel cell.
- i. What is the application of radiation shields?
- j. What is meant by “Direct energy conversion systems? Enlist the various direct energy conversion systems.

Section – B

(5 marks each)

- Q2. What do you mean by Hydrology?
- Q3. Explain with diagram different equipments of coal preparation.
- Q4. What are the advantages and disadvantages of diesel power plant as compared to other power plants?
- Q5. Compare the nuclear and thermal power plant.
- Q6. Enumerate energy sources for generation of electric power.

Section – C

(10 marks each)

- Q7. Give the layout of modern steam power plant. Also explain the silent features of the same.
- Q8. Explain with a diagram
 - (a) Geothermal power plant
 - (b) Tidal power plant
- Q9. Write short notes on:
 - a) Cooling Towers
 - b) Pneumatic conveyer system
 - c) Photovoltaic power system