



C14-M-603

4759

BOARD DIPLOMA EXAMINATION, (C-14)
SEPTEMBER/OCTOBER - 2020
DME—SIXTH SEMESTER EXAMINATION

ENERGY SOURCES AND POWER PLANT ENGINEERING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. What is the necessity of renewable source of energy?
2. What is solar cell?
3. Write the applications of wind energy.
4. What is a fuel cell?
5. Write main applications of biogas.
6. State the disadvantages of tidal power plants.
7. Explain the difference between jet and surface condenser.
8. Write a short note on moderating materials.
9. Write any three differences between thermal power plant and nuclear power plant.
10. What is thermal pollution?

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PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain absorption refrigeration-type solar space cooler with a neat sketch.
12. Explain the working principle of horizontal axis-type windmill with a neat sketch.
13. Explain the working principle of MHD generator with a neat sketch.
14. Explain the construction and working of float-type biomass digester.
15. Explain single basin and double basin arrangements in tidal energy with neat sketch.
16. Explain the dust extraction in electrostatic precipitator with a neat sketch.
17. Explain the working principle of pressurized water reactor with neat sketch. State its advantages and disadvantages.
18. What is pollution? How are they classified? Write a note on environmental pollution.

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