



C09-AEI-606 B

3720

BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2014
DAEI—SIXTH SEMESTER EXAMINATION

POWER PLANT INSTRUMENTATION

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

1. Define unit operation and unit process.
2. Define leaching and extraction.
3. Classify the dryers used in a thermal power plant.
4. List the variables of a boiler process.
5. List the advantages of hydrogen discharge system.
6. List the mechanical parameters that are monitored in a turbine supervisory system.
7. Explain the principle of a turbine.
8. List the advantages of condenser.
9. What is a forced draft fan?
10. State the necessity of water treatment in power plant.

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PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

11. (a) Explain the importance of instrumentation in power plant. 5
(b) Classify the power generation methods. 5
12. Explain the construction and principle of continuous distillation process.
13. Explain the principle and operation of a packed tower in a thermal power plant.
14. Draw and explain the *P* and *I* diagrams of boiler process.
15. Explain the furnace draft and excessive air control in a boiler.
16. Explain lube oil temperature and control in a turbine supervisory system.
17. Draw and explain steam heater feedback control.
18. Write short notes on the following : 5+5
(a) Cooling tower
(b) Conveyer belt

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