



C09-AEI-606B

3720

**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2015
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.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Classify the types of power generation.
2. Define humidification.
3. What is meant by drying? List the classification of dryers.
4. List the variables of boiler process.
5. List the mechanical parameters to be monitored by turbine supervisory system.
6. State the need of condenser vacuum control.
7. Draw the diagram of a compressor.

- * 8. Give the classification of pumps.
- 9. List the types of soot blower.
- 10. List the applications of belt conveyors.

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. (a) Explain the importance of instrumentation in power plant. 4
- (b) Explain the layout and power generation of solar power plant. 6
- 12. Explain the construction and operation of packed tower gas absorption.
- 13. Explain the principle and operation of different types of crusher and grinder.
- 14. Explain furnace draft controls in boiler operation.
- 15. Explain superheated steam temperature control with necessary diagram.
- 16. Explain lube oil temperature control with neat diagram.
- * 17. Explain various types of condenser used in power plant.
- 18. Explain the operation of cooling towers.
