



C09-AEI-606B

3720

**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2017
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. Define material balance and energy balance.
2. State the principle of distillation.
3. List the types of mixers.
4. List the variables of boiler process.
5. State turbine trip conditions.
6. Draw the diagram of lube oil temperature control.
7. State the need of condenser.

- * 8. Classify the pumps used in power plant.
- 9. State the need of water treatment.
- 10. List the types of soot blowers.

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 the principle and working of wind power plant with legible diagram.
- 12. Explain the principle and operation of single-effect evaporator and multi-effect evaporator with legible diagram.
- 13. Explain the principle of working of different types of crusher and grinder.
- 14. Explain feedback regulation drum level control of boiler.
- 15. Explain furnace draft controls in combustion process with necessary diagram.
- 16. Explain condenser vacuum control of turbine.
- 17. Explain the bypass and steam flow controls of steam heater with legible diagram.
- 18. Explain about cooling towers in power plant.
