



C16-AEI-505

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BOARD DIPLOMA EXAMINATION, (C-16)

JANUARY/FEBRUARY—2022

DAEIE - FIFTH SEMESTER EXAMINATION

INSTRUMENTATION IN PROCESS INDUSTRIES

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. Draw the diagram of solar power plant.
2. Draw the steam temperature control single stage diagram.
3. List the types of sensors used in thermal power plant.
4. List the different parts of boiler process in thermal power plant.
5. Define the term Distillation Column.
6. List various physical parameters to be measured in Distillation Column.
7. List raw materials in ISP.
- * 8. State the principle of measurement of temperature of furnace.
9. Define the term pulp.
10. List the physical properties of paper.

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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 criterion for valuation is the content but not the length of the answer.

- 11.** Explain the working of hydroelectric power plant with diagram.
- 12.** Explain steam/header pressure control with a feed forward pulse feedback control system.
- 13.** Explain eccentricity measurement of turbine with diagram.
- 14.** Explain the working of Batch Distillation Column with a diagram.
- 15.** (a) Define polymerization. 4+6
(b) Explain flow scheme of pig iron production with diagram.
- 16.** Explain the working of electric furnace with diagram.
- 17.** Explain the basic process of making the paper based on the layout.
- 18.** Explain the block diagram of mechanical pulping process.

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