



C16-AEI-505

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BOARD DIPLOMA EXAMINATION, (C-16)

NOVEMBER—2020

DAEI—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. List any three power generation methods.
2. State the importance of measurement and instrumentation in power plant.
3. Draw the block diagram of boiler process in thermal power plant.
4. List any three important variables that need to be measured in thermal power plant.
5. Define petroleum refinery.
6. List any three basic steps in refinery process.
7. Draw flow scheme of pig iron production.
8. List any three raw materials used in iron and steel plant.
9. Define the term pulp.
10. List any three raw materials for making paper.

PART—B

10×5=50

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

11. Explain the process of power generation in solar power plant with diagram.
12. Explain the method of measurement of flow of feed water with differential pressure transducer diagram.
13. Explain the measurement of turbine shaft speed with toothed-wheel diagram.
14. Explain the working of batch distillation column with diagram.
15. (a) Draw the block diagram of continuous distillation column.
(b) Draw the diagram of blast furnace.
16. Explain the working of oxygen furnace with diagram.
17. Explain the general layout of paper making process with diagram.
18. Explain the graphic displays and alarms in PPP with diagrams.
