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C16-AEI-505

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BOARD DIPLOMA EXAMINATION, (C-16)

JUNE/JULY—2022

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. List any three variables need to be measured in thermal power plant.
3. Draw the diagram of series fuel to air ratio control.
4. Define turbine shaft vibration.
5. List the three basic steps in refinery process.
6. Define catalytic cracking.
7. List any three types of furnaces used in iron and steel plant.
8. Draw the diagram of electric furnace.
9. Define the term paper.
10. List any three physical properties of paper.

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PART—B

- 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. Draw and explain the general layout of thermal power plant. 10
12. Explain furnace draft control in thermal power plant with the help of a diagram. 10
13. Explain the measurement of turbine shaft speed with a toothed wheel diagram. 10
14. Explain the working of continuous distillation column with a diagram. 10
15. Explain the working of blast furnace with a diagram. 10
16. (a) Draw the general layout of petrochemical plant. 5
(b) Draw the flow scheme of pig iron production. 5
17. Explain mechanical pulping process with the help of the block diagram. 10
18. Explain the basic process of making paper with the help of layout. 10

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