



C14-AEI-602

4706

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2017
DAEI—SIXTH SEMESTER EXAMINATION
INDUSTRIAL AUTOMATION

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 PLCs
2. State the concept of relay-based control panel.
3. List different types of PLC programming.
4. Draw the ladder diagram of DOL starter.
5. Give the ladder diagram for OR gate.
6. State the merits and demerits of direct digital control systems.
7. Define the function of data logger.
8. List any three applications of robot.
9. List the communication interfacing units of SCADA.
10. List the components of embedded systems.

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

11. Explain the block diagram of PLC.
12. Explain the interfacing of PLC with PC.
13. Explain both the counter instructions of a PLC.
14. Draw the ladder diagrams for arithmetic instructions.
15. Explain the block diagram of data acquisition system.
16. Explain the CNC machine with diagram.
17. Explain the master station unit of SCADA.
18. Explain the process of embedded system development.
