



C09-AEI-604

3717

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—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. Draw the ladder diagram for basic gates.
2. List any three different input and output instructions of PLC.
3. Draw the memory organization of PLC.
4. List the control elements used in automation.
5. State the principle of colour sensor.
6. List the three applications of SCADA.
7. Define SCADA.

- * 8. List the advantages of DAS.
9. Draw the diagram of DDC.
10. List the advantages of ROBOT.

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. Compare relay based and PLC based control panels.
12. Explain the PLC with block diagram.
13. (a) State the rules for representing ladder logic.
(b) Write a short note on use SCADA software to create graphic symbols.
14. Explain the working of inductive proximity sensor with diagram.
15. Explain the principle of operation of rotary encoder.
16. Explain the procedure for attaching tags with memory.
17. Explain the architecture of DCS.
- * 18. Explain Asimov's principle of ROBOT.
