



C09-AEI-604

3717

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2016
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. Mention any three comparisons between relay based and PLC base control panels.
2. Draw the input module diagram of PLC.
3. List any three applications of PLC.
4. Draw the diagram of reed switch.
5. List any three control elements used in automation.
6. Define SCADA.
7. List any three softwares used for SCADA to create graphic symbols.

- * 8. Mention three drawbacks of DDC.
9. Draw the block diagram of data acquisition system.
10. List any three 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. Explain different parts of PLC.
12. Explain any five bit instructions.
13. (a) Draw the ladder diagram of conveyor belt controller. 5
(b) Write a short note on 'Attach tags with memory'. 5
14. (a) Explain about colour sensors. 5
(b) Explain the operation of pneumatic switch. 5
15. Explain the working of capacitive proximity sensor.
16. Explain interfacing of SCADA with PLC.
17. Explain data logger with its block diagram.
- * 18. Explain the operation of simple robot.
