Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Automation & Robotics)   (Sem.–7)
PROGRAMMING INDUSTRIAL AUTOMATION SYSTEMS
Subject Code : BTAR-702
M.Code : 71807

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Write briefly :

1. Name the different types of relays.

2. What is the purpose of the programming unit?

3. How are process variable classified?

4. Define different sequential process.

5. State advantages of industrial automation.

6. Write some additional capabilities of PLC.

7. Define STL.

8. Define the concept of inter locking function of PLC.

9. Name different type of counters.

10. Write down the data move instructions.

SECTION-B

11. What are IEC61131 international standard for PLC?

12. Explain timer and its classification.

13. Discuss the memory structure of PLC.

14. Discuss and explain the application of PLC.

15. With example, illustrate ladder logic function.

SECTION-C

16. Write a note on :

    a) Ladder Logic Methodology

    b) Bit Logic Instruction

17. What data handling instructions are followed in PLC?

18. How does PLC interfacing is done with plant? Explain it with an example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.