

2202E005

BACHELOR OF VOCATION

Mechatronics

Subject: MOOC/Online Course-I (Industrial Automation & Control)

Subject Code: OET-502

Semester: First

February 2022

Theory (External): 70 Marks

Time: 03 Hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number

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SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x2=20 Marks)

- A. Define the application of sequence control
- B. Define switching operation
- C. Define Turing
- D. Define the application of controller
- E. Define the application of scan cycle
- F. Define speed
- G. Define Torque
- H. Define the application of Winding in DC motor
- I. Define efficiency
- J. Discuss function of Timer

SECTION –B (ESSAY TYPE QUESTIONS)
(5x10=50 Marks)

1. What is PLC? Draw block diagram of PLC and explain each block in detail
2. Explain in detail input output module used in PLC.

3. Describe types of automation system with neat and clean diagram
4. Explain the working of PID controller with neat and clean diagram and also mention their application in manufacturing industries
5. Describe the construction and working of Relay with neat and clean diagram
6. Explain the construction and working of Pneumatic system with neat and clean diagram and also mention its merits.
7. Describe the working of DC Converter with neat and clean diagram and also mention its advantages and disadvantages
8. Explain the working of BLDC-Motor with neat and clean diagram along with suitable applications

END OF PAPER