

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRICAL & ELECTRONICS – CP23
IV SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JULY 2023

Subject: Control System
Subject Code: CP23401T

Total Time: 2 Hr.
Total Marks: 50

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING

2*8=16

- 1.1 What is System?
- 1.2 Define transfer function of a control system.
- 1.3 What are the basic elements used for modeling mechanical translational system
- 1.4 What is mean by Potentiometer?
- 1.5 Define transient response of a system.
- 1.6 What is Settling time?
- 1.7 What is gain cross over frequency?
- 1.8 What is Index of performance (IP)?
- 1.9 Define Mechatronics System.
- 1.10 What are the types of Computerized Process control?

2.0 ANSWER ANY SIX OF THE FOLLOWING

3*6=18

- 2.1 Distinguish between Open loop and closed loop control system.
- 2.2 How a control system is classified depending on the value of damping?
- 2.3 Explain various test signals
- 2.4 What are Basic Components of Computer based Measurement and Control system?
- 2.5 Write down the difference between Conventional system and mechatronics system.
- 2.6 Explain Proportional Integral derivative Controller with block diagram?
- 2.7 What type of feedback is preferred in control system and why?
- 2.8 What are the Applications of Mechatronics System?

3.0 ANSWER ANY FOUR OF THE FOLLOWING

4*4=16

- 3.1 Explain Circuit diagram for Potentiometer as an Error Detector.
- 3.2 Explain Adaptive Control System with neat diagram
- 3.3 Draw the Building Block of Mechatronics System and Explain.
- 3.4 Explain Automatic Combustion Control System used in Boiler Plant.
- 3.5 Find the transfer function of armature controlled D.C. Motor.
- 3.6 What is block diagram? What are the basic elements of block diagram?

