

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN MECHATRONICS ENGINEERING & SMART FACTORY-CP15
V SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: CNC Technology
Subject Code: CP15504T

Total Time: 2 Hr.
Total Marks: 50 Marks

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING

2*8=16

- 1.1 What is NC machine?
- 1.2 Define Backlash.
- 1.3 What are the key components of servo system?
- 1.4 Define encoder
- 1.5 Write any 4 examples of work holding devices in milling machine
- 1.6 What are the types of jog?
- 1.7 Name the three Coordinate system used in the Machines
- 1.8 Write the functions of G90&G91 for milling
- 1.9 What are cutting tool materials?
- 1.10 Mention the types of motion control system

2.0 ANSWER ANY SIX OF THE FOLLOWING

3*6=18

- 2.1 Draw the block diagram of CNC machine
- 2.2 Explain the point to point control system
- 2.3 How Automatic tool changer helps save machining time?
- 2.4 Explain the given tool holder designation

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- 2.5 What is jogging the axes with hand wheels?
- 2.6 What are the G codes used in the Tool Length Compensation & CRC?
- 2.7 Explain broad classification of Machine Maintenance.
- 2.8 List down the applications of ball screws.

3.0 ANSWER ANY FOUR OF THE FOLLOWING

4*4=16

- 3.1 Write any 4 applications, advantages and disadvantages of CNC machine
- 3.2 With neat diagram explain open loop and closed loop system
- 3.3 Explain the types of encoders depends on measurement
- 3.4 Write the functions of automatic pallet changer
- 3.5 Explain the program format N-G98/99 G81 R-Z-F-
- 3.6 Write a manual part program for Lathe operation for the component as shown in drawing



