

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRONICS ENGINEERING & EMBEDDED SYSTEM – CP04
V SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: Embedded System Concepts
Subject Code: CP04502T

Total Time: 2 Hr.
Total Marks: 50 Marks

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING **2*8=16**

- 1.1 Name the software used in embedded system.
- 1.2 What are the devices used for communication interface in embedded system.
- 1.3 Name the components used to reduce the power consumption in embedded system.
- 1.4 Draw the synergy diagram of embedded system
- 1.5 Explain about footprint.
- 1.6 Explain the term cross platform development.
- 1.7 List out the name of processor based on number of memory and bus architecture.
- 1.8 Define task in embedded system
- 1.9 Define interrupt latency.
- 1.10 List the classifications of RTOS.

2.0 ANSWER ANY SIX OF THE FOLLOWING **3*6=18**

- 2.1 Write the applications of embedded system in various field
- 2.2 Draw the layered architecture of embedded system.
- 2.3 How to make the embedded system reliable?
- 2.4 Explain the risk associated with project proposal preparation and how to overcome the risk?
- 2.5 Write the difference between interrupt and polling.
- 2.6 Explain the terms segmentation and paging
- 2.7 With a neat diagram explain the different states of task.
- 2.8 Explain the functions of watch dog timer

3.0 ANSWER ANY FOUR OF THE FOLLOWING **4*4=16**

- 3.1 Explain different types of embedded system with example
- 3.2 Explain Von Neumann, Harvard and Super Harvard architecture with neat diagram.
- 3.3 Write the difference between RISC and CISC processors
- 3.4 Explain the testing associated to embedded system development
- 3.5 Explain the different types of scheduling algorithm with neat diagram.
- 3.6 Write a short note on the following terms:
a) Semaphore b) Mutex c) Mailbox d) Message Queue