

2023
M. Tech. (Micro-Electronics)
First Semester
MIC-107: Embedded System Design

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following:-

- a) Define regular processors
- b) Example of ASSP
- c) Name basic services by Kernel of an Embedded System
- d) Data Parallel Communication
- e) Role of flash memory

(5x2)

UNIT - I

- II. a) Explain Embedded System. Also classify the embedded systems with suitable examples and diagrams.
b) Explain the block diagram of microcontroller core and briefly explain the RAM, ROM, timer and interrupts.
- (2x5)
- III. a) Explain Application specific system Processor
b) Explain what is an instruction pipelining. What is the role of machine cycles?
- (2x5)
- IV. Explain Kernel and set of services related to it in detail.
- (10)

UNIT - II

- V. Explain the SOC for mobile phone in detail.
- (10)
- VI. Explain in detail software tools for embedded systems.
- (10)
- VII. Explain in detail the scopes and analyzers for system hardware test for an Embedded System.
- (10)

x-x-x