

No. of Printed Pages : 03

Roll No.

732

B. Tech. EXAMINATION, Dec. 2017

(Seventh Semester)

(Old Scheme) (Re-appear Only)

(ECE-EEE)

ECE-403(NEW)/IC-403(OLD)

EMBEDDED SYSTEMS DESIGN

Time : 3 Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(3-16/3) M-732

P.T.O.

Unit I

1. (a) Explain PIC microcontroller with its architecture and also explain its all blocks. **15**
(b) Write Intel Hex object file program. **5**
2. What are different debugging strategies ? Give details of debugging tools also with examples. **20**

Unit II

3. Write short notes on the following : **20**
 - (a) Analog to Digital Converter
 - (b) Analog Interfacing Application
 - (c) Simulator.
4. (a) Define concept of shared memory. Give characteristics of shared memory. **10**
(b) Define concept of ultra sonic distance measuring design using microcontroller. **10**

Unit III

5. (a) What is DRAM ? How is it better than S-RAM ?
(b) What are different hardware used in micro computer system ? **20**
6. (a) Explain loop control, stack operation and subroutine.
(b) Explain various types of instruction set used in microcontroller. **20**

Unit IV

7. Write short notes on the following : **20**
 - (a) Intel Hex
 - (b) High level language
 - (c) Input/output port expansion.
8. (a) Harvard vs. Princeton.
(b) UART. **15**