

Roll No

MEVD-105**M.E/M.Tech., I Semester**

Examination, June 2016

Embedded Micro Controller Programming*Time : Three Hours**Maximum Marks : 70*

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Define embedded systems. Explain the characteristics of an embedded system. 7
b) Classify the processors used in embedded system. Name some DSP used in embedded system. 7
2. a) i) Define embedded microcontroller with example. 2
ii) How Digital Signal Processor's are different from general purpose microcontroller? Explain it. 5
b) In what way CISC and RISC processors differ. 7
3. a) Explain the various memory devices along with component interfacing. 7
b) What is DMA data transfer scheme? Discuss the function of DMA controller. 7
4. a) With the help of neat block diagram, explain 8051 microcontroller. 7

- b) Write an assembly language program to generate a square wave of 50 Hz on pin P2.1. Assume crystal frequency = 11.0592 MHz. 7
5. a) State the features of 68HC11 microcontroller. Give its memory map. 7
b) Differentiate between polling and interrupts. Explain the various interrupts supported by 8051. 7
6. a) Design an interfacing scheme to interface ADC0804 with 8051 microcontroller. 7
b) Explain CAN bus protocol with necessary diagram. 7
7. a) Draw the architecture of an ARM processor. Explain about the various blocks in details. 7
b) Explain the few typical instructions supported by ARM microcontroller. 7
8. Write a short notes on any two. 14
a) ARM programming model
b) 80196 microcontroller
c) Wireless protocols
