

Roll No

EC-8014**B.E. VIII Semester**

Examination, June 2017

**Introduction to Microcontroller for
Embedded Systems
(Elective - II)**

Time : Three Hours**Maximum Marks : 70**

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

1. How Cortex-M3 processor is different from basic ARM architecture? Discuss in detail.
2. Explain ARM architecture with the help of neat block diagram.
3. Discuss in detail how interrupts are handled in microcontroller system.
4. Discuss any Tiva base embedded system application incorporating the features of watchdog timer.
5. Discuss any one Tiva based system application using PWM.
6. Explain in brief with respect to embedded system.
 - i) DMA
 - ii) ADC

7. Discuss CAN and USB interfaces on Teva platform.
8. Answer any four of the following:
 - a) What are different features and architecture considerations while developing an embedded system?
 - b) What is Active vs stand by current consumption?
 - c) Write a short note on timing generation and measurement.
 - d) What are different Synchronous and Asynchronous interfaces?
 - e) What is Ethernet? What is the difference between Ethernet and WiFi?
 - f) What are the applications of wireless protocol?
