Code No: 5155B

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each
question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a)   Explain how interrupt handling can be done in an embedded system
 b)   How a micro controller differs from a micro processor?
 c)   Explain about the device header
 d)   Discuss the key characteristics of Auto Pilot system.
 e)   Explain the Key software components used in intruder Alarm System.

PART - B

5 × 8 Marks = 40

2.a)   How do you develop embedded software?
 b)   Explain which processor should be use in embedded systems?   [4+4]

OR

3.a)   Explain the external interface of the standard 8051 microcontroller.
 b)   Explain the memory architecture of 8051 microcontroller.   [4+4]

4.a)   What is the need for pull-up resistors in 8051 microcontroller?
 b)   Write a simple program for counting the number of times that a switch is pressed
      and released.   [4+4]

OR

5.a)   Explain the basic techniques for reading from port pins of 8051.
 b)   Explain how to deal with switch bounces.   [4+4]

6.a)   Explain the structure of a Project Header with sample code.
 b)   Explain in detail about the port header.   [4+4]

OR

7.   Explain the logic that how the Hello, Embedded World can be Restructured.[8]

8.   Explain with a program how a precise 50 ms hardware delay can be occur in
     Flashing LED.   [8]

OR