Code: 17D06201

M.Tech I Semester Regular & Supplementary Examinations January/February 2019
EMBEDDED SYSTEM DESIGN
(Common to ES, VLSI&ES, ES&VLSI and VLSI&ESD)
(For students admitted in 2017 & 2018 only)

Time: 3 hours   Max. Marks: 60

Answer all the questions
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1   List the features of ISA models and describe the various types of ISA models.
                                              OR
2   (a) Describe the various approaches to embedded systems.
    (b) Explain the anatomy of a typical small microcontroller.

3   Describe the instruction set of MSP430.
                                              OR
4   Discuss the use of interrupts and explain the framework of interrupt service routine.

5   Describe the hardware and software approaches to switch debouncing.
                                              OR
6   (a) Explain the features of Timer-B with block diagram.
    (b) Explain the construction and working of liquid crystal displays.

7   Describe the operation of a thermometer using SPI in various modes.
                                              OR
8   Discuss the formats and standards for asynchronous serial communication.

9   (a) Discuss the salient features of code composer studio.
    (b) Explain about I^2C protocol.
                                              OR
10 (a) Write the program for MSP430 to demonstrate blinking LED.
    (b) Describe UART communication through software.

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