Roll No. .....

23532

M. Tech. 3rd Sem.

(Embedded System and VLSI Design)

Examination – January, 2016

EMBEDDED CONTROL SYSTEM

Paper : MT-VLES-603

Time : Three Hours] *[Maximum Marks : 100*

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

Note : Attempt any *five* questions.

1. (a) Explain how hardware is controlled with software. 10

(b) Explain switch input detection. 10

2. Explain in detail the LCD module display. 20

3. (a) Explain R2R Ladder DAC. 10

(b) Explain multichannel analog to digital data acquisition. 10

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4. Explain Asynchronous serial communication. Also explain in detail the RS-232 and RS 455. 20

5. Explain the bidirectional control of motors and stepper motor control using embedded C programming. 20

6. (a) Explain ADC 0809 in detail. 10

(b) Explain low level PC serial I/O module. 10

7. What is an interrupt ? Explain interrupt latency, response and recovery. Also comment on the ISR processing time. 20

8. Write short note on : 20

(a) Keyboard basics.

(b) Multiplexed LED displays.

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