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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2015

Sixth Semester

Branch: Electrical and Electronics Engineering
EE 010 605—MICROCONTROLLERS AND EMBEDDED SYSTEMS (EE)

(New Scheme-2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

- 1. Define PSW.
- 2. Can you list the single bit instructions?
- 3. What fact shows in polling?
- 4. Which one is the important process in memory address decoding for RAM?
- 5. How would you describe about the RISC?

 $(5 \times 3 = 15 \text{ marks})$

Part B

Answer all questions.

Each question carries 5 marks.

- 6. Draw the main function and diagram of interrupts.
- 7. Which statements support the timing subroutines?
- 8. How would you summarize the serial communication?
- 9. Can you explain what is happening in the interfacing keyboard?
- 10. Will you interpret in your own words about the PIC memory organization?

 $(5 \times 5 = 25 \text{ marks})$

Part C

Answer all questions.

Each question carries 12 marks.

11. Draw and explain the embedded system with suitable diagram.

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12. Give a description about the elements of 8051 architecture.

Turn over

13. Discuss in detail about the types of instruction in 8051.

Or

- 14. With the help of neat diagram explain the different addressing mode.
- 15. Write in detail about timer/counter programming in 8051.

Or

- 16. Explain in detail about RS232.
- 17. Comment on the interfacing of stepper motor with suitable diagram.

Or

- 18. Illustrate the ADC and DAC to 8051 with neat block diagram.
- 19. Briefly describe PIC 16F877 architecture.

Or

20. List and explain the different cause of interrupt structure in PIC 16F877.

 $(5 \times 12 = 60 \text{ marks})$

