

Reg. No.:

VIII Semester B.Tech. Degree (Supplementary – Including Part Time) Examination, October 2014 (2007 Admn. Onwards) PT2K6/2K6 EC 805 (D): EMBEDDED SYSTEMS

Time: 3 Hours Max. Marks: 100

PART-A

- 1. a) Why do we use microprocessors to design digital systems?
 - b) What is 'system integration'?
 - c) Differentiate little endian mode and big endian mode.
 - d) Differentiate the functions of data registers and status registers of I/O devices.
 - e) Differentiate fixed priority arbitration schemes with fair arbitration schemes.
 - f) How is a single hop network different from a multihop network?
 - g) What is the need for validating time constraints in priority driven systems?
 - h) What is scheduling?

 $(8 \times 5 = 40)$

15

15

15

PART-B

- 2. a) Write a note on the major steps in the embedded system design process. 15
 - b) Differentiate structural description with behavioural description using examples. 15
- 3. a) Write a detailed report on SHARC processor.

OR

- b) Briefly describe the different types of memory devices you are familiar with. 15
- 4. a) With an example, explain a distributed embedded system.

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- b) Write a note on the bus structure used to link microcontrollers into systems. 15
- 5. a) Differentiate clock driven approach and priority driven approach with examples. 15
 - b) With an algorithm explain the effective release times and dead lines of a system.