

Code: 9A02806

**R09**

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013

**EMBEDDED SYSTEMS**

(Electrical and Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) What are the basic components of an embedded system? Explain.  
(b) What are the various types of embedded system? Explain each of them in detail.
- 2 Explain in detail the concept of memory allocation and memory mapping in embedded systems.
- 3 Explain the following in detail:
  - (a) States in a timer.
  - (b) Uses of timer device.
  - (c) Different forms of a timer.
- 4 What are the different types of sources of interrupts? Explain in detail the concept of interrupt servicing mechanism.
- 5 What is meant by software analysis? How can you model processes for software analysis? Explain.
- 6 Explain the following in detail:
  - (a) Software testing and test approaches.
  - (b) Software Debugging and Debugging techniques.
- 7 What are the basic issues involved in the embedded system design? Explain.
- 8 Discuss in detail the concepts of real time operating systems and embedded system operating systems.

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