

Code: R7410505

B.Tech IV Year I Semester (R07) Supplementary Examinations December 2015

EMBEDDED SYSTEMS

(Common to CSE, IT & CSS)

(For 2008 Regular admitted batch only)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain formalisms for system design.
(b) What is an embedded system? Explain the components of an embedded system.
- 2 (a) Explain about 8051 architecture in detail.
(b) Explain the interfacing of external memory with 8051.
- 3 (a) List the 16-bit data addressing registers in 8051 microcontroller and explain their functions.
(b) Write an assembly language program to sort given numbers in descending order.
- 4 (a) Explain arithmetic operations instructions with examples.
(b) What is an interrupt? Explain interrupts concept in detail.
- 5 (a) Explain how keyboard is interfaced with 8051.
(b) Discuss about serial data communication.
- 6 (a) Explain about interrupt routines in an RTOS environment.
(b) Discuss about mailboxes and pipes.
- 7 (a) Explain various debugging techniques.
(b) Differentiate linker and loader.
- 8 (a) Explain in detail about the architecture of ARM processor.
(b) Write in detail about internet-enabled systems.
