

Code :R7410505

R7

IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011
EMBEDDED SYSTEMS

**(Common to Computer Science & Engineering, Information Technology, Computer Science
& Systems Engineering)**

Time: 3 hours**Max Marks: 80**

Answer any FIVE questions
All questions carry equal marks

1. (a) Explain the role of microprocessor in an embedded system.
(b) Discuss the formalisms for system design.
2. (a) Give the hardware diagram of 8050 micro controller and explain.
(b) Explain about counters.
3. (a) Give the format of an instruction of an assembly language program and explain with an example.
(b) Write an ALP to check whether the LSB of the contents of memory location 2000H is 1 or not.
4. Distinguish between jump and call instructions with suitable examples.
5. Write notes on the following:
 - (a) D/A conversions
 - (b) Serial data communication.
6. (a) What is shared data problem and explain how semaphores solve this problem.
(b) Discuss about interrupt routines in an RTOS environment.
7. (a) Explain Hard Real-Time scheduling considerations.
(b) Explain links/locators for embedded software.
8. Write short notes on:
 - (a) Networked embedded systems.
 - (b) I²c bus.
