

BE (Electronics)  
Embedded Systems + RTOS (Elective-I)  
404204 (2012 course)

**BE/In Sem- 53**

- Q.1 (a) Definition → 02 Marks  
(b) Categories of Embedded Systems → 03 Marks
- Q.2 (a) 3 processor Technologies each for → 2 Marks  
(b) Hardware Design of vending machine → 2 Marks  
Software Design Steps → 2 Marks
- Q.3 (a) Definition → 02 Marks  
Steps involved → 03 Marks  
(b) Priority inversion problem → 03 Marks  
2 solutions (PIP & PCP) → 02 Marks
- Q.4 (a) ucos-II  $\mu$ OS service functions for Task management with one line description → 04 Marks  
(b) Each definition for 2 Marks
- Q.5 (a) 8 ucos-II RTOS features → 4 Marks  
(b) Description of reserved tasks & total 64 tasks → 03 Marks  
preemptive scheduler description → 03 Marks
- Q.6 (a) Diagram of ucos-II architecture → 03 Marks  
Explanation → 02 Marks  
(b) Diagram & task states & transition marked correctly → 05 Marks