

**Note :-** All questions from each section carry equal marks. All questions are compulsory and answer limit are approximately 250 words. Start the answer of each section from new page. Maximum limit of pages of answer booklet are approximately 16 pages. Answer should be written by the student in his/her own handwriting mandatory. The first page of answersheet should be download by the student from university website [www.bubhopal.ac.in](http://www.bubhopal.ac.in) is mandatory.

1. (a) Discuss with suitable example, shared data problem and its consequences.  
(b) Define Interrupt latency. Discuss different ways to reduce it.
2. (a) Draw comparative chart between microprocessor and microcontrollers.  
(b) Discuss superiority of RTOS over other software architectures.
3. (a) What is Re-entrant function? With suitable example, explain its utility in overcoming shared data problem.  
(b) What are the ways in which tasks communication with each other? Explain.
4. (a) Give advantage and disadvantages of having large number of tasks.  
(b) List different ways in which memory space can be saved in embedded. system.
5. (a) Discuss advantages and disadvantages of testing embedded system on host machine.  
(b) List different laboratory tools used in testing embedded system and. Give function of each tools.