Real Time Operating System
(CSE-324, Dec-2005)

Note: Section A is compulsory. Attempt any four questions from Section-B and any two from Section-C.

Section-A

1. a) Write about interrupt handling process in a multiple interrupt system.
   b) Can you describe a computer system that is completely a Real Time System?
   c) Differentiate between direct mode addressing & indirect mode addressing.
   d) Which are the traditional performance measures used for real time systems?
   e) How much scheduling is important in Real Time systems?
   f) What are main memory databases?
   g) List the advantages of multihope protocol.
   h) What are the hard deadlines mentioned for Real Time Systems?
   i) Mention concurrency control issues related to Real Time Databases.
   j) Write the disadvantages of pooled bus protocol.

Section-B

2. What system considerations are required in designing Real Time System?
3. Write using example Compare, Jump & Subroutine instructions.
4. Which language provide for some sort of GOTO statement? Does the GOTO statement affect Real Time performance? If so, How?
5. Differentiate between classical uniprocessor scheduling and fault tolerant scheduling.
6. Differentiating between general purpose database & Real Time database.

Section-C

7. Write & compare between contention based protocol and token based protocol.
8. What are the architectural issues must be considered in designing the communication protocols for Real Time System?
9. Write the algorithm for hierarchal round robin protocol.