

ANNA UNIVERSITY CHENNAI
B.E DEGREE EXAMINATIONS NOV 2012
COMPUTER SCIENCE AND ENGINEERING
SIXTH SEMESTER (REGULATION 2008)
CS9097 – REAL TIME SYSTEMS

30

Time : 3 hrs

Max.Marks:100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. What is run time?
2. Define scheduling?
3. Explain overloading with an example?
4. What is multitasking?
5. What are the concurrency control issues?
6. What are the issues of a Real-Time Database?
7. What are the various communication media?
8. What are reversal checks?
9. Name the reliability models for hardware redundancy?
10. What is the impact of faults?

Part – B (5 x 16 = 80 Marks)

11. (a)
- i. What are the issues in real time computing? Discuss(8)
 - ii. How do you measure performance for real time systems?(8)

12.

- a. Write short notes on the following(8*2=16):
- i. Desired language characteristics
 - ii. Packages

(OR)

12. b.

- i. Describe run time (exception) error handling with suitable illustrations (10)
- ii. Discuss run time support? (6)

13. a.

- i. Describe main memory databases?(10)
- ii. What are transaction priorities and transaction aborts(6)

(OR)

13. b.

- i. Explain how do you maintain serialization consistency?(10)
- ii. Write a note on disk scheduling algorithms(6)

14.

- a. Give an account on the fault tolerance techniques, fault types and fault detection.

(OR)

- b. "The network topology for a computer or distributed system must be carefully chosen since it affects the system response time and reliability". Discuss.

15.

a)

- i. Explain the fault Tolerant synchronization in hardware(12)
- ii. Describe clock synchronization (6)

(OR)

b) Write short notes on the following:

- i. Non-fault Tolerant synchronization algorithm(8)
- ii. Fault Tolerant synchronization in software(8)