May-08
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# Paper ID [CS324]

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**B.Tech. (Sem. - 6th/7th)**

**REAL TIME SYSTEM (CS - 324)**

**Time : 03 Hours** **Maximum Marks : 60**

**Instruction to Candidates:**

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

## Section - A

*Q1)* *(10 × 2 = 20)*

a) How a real time system is different from other computer based systems?

b) "Round Robin Scheduling does not work for the real time applications", comment on the statement.

c) How hard deadlines are performance measures for the real time systems?

d) What is the difference between static priority and dynamic priority algorithms? Give example for each.

e) What do you mean by a Bin Packing algorithm for scheduling?

f) How real time databases are different from the general purpose databases?

g) What do you mean by optimistic concurrency control for real time systems?

h) How a network topology is important for real time communication?

i) What is the principle of Stop and Go Multihop protocol?

j) Give the applications of real time systems.

## Section - B

*(4 × 5 = 20)*

*Q2)* Explain the architecture of a real time system. How can you classify the tasks for the real time systems?

*Q3)* What are the performance measures for real time systems? Discuss the properties that the different performance measures should have.

*Q4)* Discuss fault tolerant scheduling. What are its different advantages over other scheduling algorithms?

*Q5)* Write short note on main memory databases.

*Q6)* Discuss the different architectural issues in designing a real time system.

## Section - C

*(2 × 10 = 20)*

*Q7)* Explain Earlist Deadline First (EDF) algorithm in detail.

*Q8)* How the execution of concurrent transactions can be controlled in real time systems? Discuss with the help of suitable examples.

*Q9)* Discuss in detail the token based protocol for communication in real time systems.

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