

Topics for Fault-Tolerant Computing

Comprehensive Exam

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1. Definitions. Goals (e.g., reliability, availability). Applications of FT computing. Design objectives.
2. Faults, errors, and failures. Causes. Characteristics. Fault avoidance, masking, tolerance. Techniques.
3. Design Techniques. Redundancy. Hardware redundancy. Information redundancy. Time redundancy.
4. Software Fault Tolerance.
5. Evaluation Techniques. Reliability Function. Reliability Modeling. Markov models.
6. Fault tolerance for Multiprocessor systems.