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**B. E. (Seventh Semester) Examination,
April-May 2020**

(Old Scheme)

(CSE, IT Engg. Branch)

FAULT TOLERANT SYSTEM

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Answer all the questions. All questions carry equal marks.

Unit-I

1. Answer any **two** questions :

- (a) Describe the applications of fault-tolerance system with the self-explanatory diagram.

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- (b) Discuss the role of redundancy in the fault-tolerance system.
- (c) Describe all the fundamental property of dependability related with the fault-tolerance system.

Unit-II

2. Answer any **two** questions :

- (a) Describe how fault prevention in the system can be done.
- (b) List out all the attributes of fault-tolerance system and discuss any two.
- (c) Write a short note on the following :
 - (i) Fault Removal
 - (ii) Impairments in the system

Unit-III

3. Answer any **two** questions :

- (a) Give the reliability block diagram and explain the same.
- (b) Explain in full details the Markov processes and its application.

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(c) Write a short note on the following :

- (i) Failure rate
- (ii) Mean time to failure
- (iii) Mean time to repair

Unit-IV

4. Answer any **two** questions :

- (a) Explain the process of Encoding and decoding techniques used in fault-tolerant system.
- (b) Give the significance of time redundancy in the good fault-tolerant system.
- (c) Discuss the objectives of the redundancy schemes.

Unit-V

5. Answer any **two** questions :

- (a) What are the software fault tolerance techniques?
Describe its utility in fault tolerant system.
- (b) Discuss all the programming features in the good fault-tolerant system.
- (c) Explain the role of software fault tolerance.