



**DHARMSINH DESAI UNIVERSITY, NADIAD**  
**FACULTY OF TECHNOLOGY**  
**THIRD SESSIONAL EXAMINATION**  
**SUBJECT: (CT616) SOFTWARE ENGINEERING**

Examination	: B.TECH Semester - VI	Seat No.	:
Date	: 08/04/2016	Day	: Friday
Time	: 12:30 to 01:45	Max. Marks	: 36

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**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
  2. The symbols used carry their usual meanings.
  3. Assume suitable data, if required & mention them clearly.
  4. Draw neat sketches wherever necessary.
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**Q.1 Do as directed.**

[12]

- (a) State whether the following statements are true or false. Support your answer with proper reasoning: [2]
- (a) The effectiveness of a test suite in detecting errors in a system can be determined by counting the number of test cases in the suite.
- (b) Error and failure are synonymous in software testing terminology.
- (b) State the difference between white-box testing and black-box testing. [2]
- (c) What is the difference between verification and validation? [2]
- (d) Prove that branch coverage testing is stronger than statement coverage testing. [2]
- (e) Differentiate volume testing and configuration testing. [2]
- (f) Explain, by using one simple sentence each, what you understand by the following reliability measures: [2]
- a) A POFOD of 0.001
  - b) A ROCOF of 0.002
  - c) MTBF of 200 units
  - d) Availability of 0.998

**Q.2 Attempt *Any TWO* of the following questions.**

[12]

- (a) Explain different characteristics of a good UI design. [6]
- (b) What are drivers and sub modules in the context of integration and unit testing of a software product? Why are stubs and drivers modules required? [6]
- (c) Explain various types of performance testing. [6]

**Q.3**

- (a) Draw CFG and design white box test cases using Statement coverage, Branch coverage condition coverage, path coverage of GCD program. [6]
- (b) Explain various kind of ISO standards. [6]

**OR**

**Q.3**

- (a) Draw CFG and design white box test cases using Statement coverage, Branch coverage condition coverage, path coverage of LCM program. [6]
- (b) Explain various kind of CMM levels. [6]