

**67212**

**MCA 5th Semester (New) for full  
subject candidates Examination-  
December, 2013**

**SOFTWARE TESTING AND QUALITY  
ASSURANCE**

**Paper MCA-502**

**Time : 3 hours**

**Max. Marks : 80**

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Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

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**Note :** Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

**UNIT - I**

1. (a) What are the parameters to be monitored for the system acceptance ? Explain how it could be done ?  
  
(b) Why is validation more difficult than verification ? Explain.

2. (a) Why is White box testing complementary to Black box testing ? Prove it with example.
- (b) Discuss the following :
- (i) Types of data flow testing
  - (ii) Symbolic testing.

### **UNIT - II**

3. (a) What are different types of integration testing methods that can be used for testing of large software product ?
- (b) What are design metrics ? Explain different high level and low level design metrics.
4. Discuss various metrics in different phases of SDLC with example.

### **UNIT - III**

5. (a) Explain the complete process of OO testing with ATM cash withdrawal process.
- (b) Discuss top management quality assurance activities.

6. (a) What are different components of costs for quality software ? Explain.
- (b) Explain the testing methods applicable at class level.

#### UNIT - IV

7. (a) Explain capability maturity levels according to CMM.
- (b) What is quality control ? Explain the method of measuring software reliability as a quality attribute.
8. (a) Explain various steps of six sigma methodology.
- (b) What is hazard analysis ? Why is it useful ?