

Roll No.

67202

**MCA 5th Semester (Old)
Examination – December, 2016**

SOFTWARE TESTING & QUALITY ASSURANCE

Paper : MCA-502

Time : Three Hours] [Maximum Marks : 75

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 examination.

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

UNIT – I

1. (a) How a testing methodology can be worked out ?
Explain.
- (b) How can mutation testing be done ? What are the advantages of performing mutation testing ?

2. (a) Why White box testing is complementary to Black box testing ? Prove it with example.
- (b) Discuss the following :
- (i) Types of data flow testing
 - (ii) Ticking box 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. (a) Explain various Object Oriented metrics which are directly or indirectly address complexity, Polymorphism and information hiding.
- (b) Differentiate test data generator and test derives with example.

UNIT – III

5. (a) Explain the complete process of OO testing with ATM cash withdrawl process.
- (b) Discuss top management quality assurance activities.
6. (a) What are different components of costs for quality software ? Explain.
- (b) Explain the testing method applicable at class level.

UNIT – IV

7. (a) Explain capability maturity levels according to CMM.
- (b) What is hazard analysis ? Why it useful.
8. Write notes on the following :
- (a) SQA plan
 - (b) ISO 9000 standard