

8. With suitable example explain how can quality metric help to improve the quality of S/W product and provide the cost estimate of a S/W project, which facilitates the estimation and planning the new activities. **15**

No. of Printed Pages : 04

Roll No. ....

**EE-688**

**M.C.A. EXAMINATION, Dec. 2018**

(Fifth Semester)

(B. Scheme) (Main & Re-appear)

MCA661

SOFTWARE TESTING AND  
QUALITY

*Time : 3 Hours]*

*[Maximum Marks : 75*

---

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

---

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

### Unit I

1. What do you mean by Regression Testing ?  
How is it performed ? Write and explain three methods to perform regression testing with relative advantages and disadvantages of each.

15

2. (a) Describe any *two* strategies for integration testing.  
(b) Write and explain the practical and theoretical limitations of software testing.

7

### Unit II

3. How the complexity of a program unit may be evaluated ? Describe any *one* method for complexity evaluation. What is the effect of complexity on testability of a unit ?  
4. (a) Define mutation testing. With suitable examples describe types of mutants.

15

7

- (b) Differentiate between equivalence class partitioning and boundary value analysis. Describe the situations under which these should be used.

8

### Unit III

5. What are the goals of software quality assurance ? Describe the evolution process of SQA.  
6. List the major software quality attributes. What are different activities to be carried out during software quality assurance ? List any *five* responsibilities of a quality control auditor.

15

15

### Unit IV

7. List out five key attributes of software quality standards. Distinguish between ISO 9000 and ISO/IEC 9126 standards.

15