

Roll No.

67105-N

**MCA 3rd Semester (MCA 2 Year
Programme) w.e.f. 2021-22
Examination – December, 2024**

**SOFTWARE TESTING & QUALITY ASSURANCE
ELECTIVE 1 (II)**

Paper : 21MCA23DA2

Time : Three hours]

[Maximum Marks : 80

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 *one* question from each Unit. Question No. 1 is *compulsory*.

1. Explain the following in brief :

- (a) Test drivers
- (b) Testing tools
- (c) Regression testing
- (d) Capability maturity models
- (e) Quality management

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- (f) Database testing
- (g) Goals of software quality assurance
- (h) FTR

UNIT - I

2. (a) What is Software testing ? How is testing important in software life cycle ? Discuss the objectives of software testing in detail.
(b) Explain the following in detail :
 - (i) Software testing guidelines
 - (ii) Customizing the software testing process
3. What is White box testing and Black box testing ? Explain the main techniques for performing black box testing.

UNIT - II

4. (a) What is Software Testing Strategy ? Explain the characteristics of a good software testing strategy in detail.
(b) Explain the following in detail :
 - (i) Test data generator
 - (ii) Debuggers

5. (a) What is Software Metrics ? Enumerate the qualities of good software metrics. How the software metrics can help in software management ? Explain in detail.
- (b) Explain integration, System, Alpha and Beta testing in detail.

UNIT – III

6. Explain the following in detail :
- (a) Testing Web Application
- (b) Rational Rose and its Features
7. What is object oriented testing ? Explain the various object-oriented testing strategies and issues in detail. Also explain path testing and class testing.

UNIT – IV

8. What is Software Quality Assurance (SQA) ? Explain the components, importance and essence of SQA in detail.
9. (a) What are ISO quality standards ? Explain ISO 9000 certification and their relevance in detail.
- (b) What is Software Quality ? What are the important software quality attributes ? Also explain the software quality challenges in detail.

