

Unit-IV

8. (a) What is Software Safety ? How is it implemented ? Explain its techniques with examples in detail.
- (b) Explain ISO quality models with examples. 7.9
- 9 Explain the following briefly with examples :
- (a) CMM levels and their merits and demerits
- (b) Software reliability and its metrics 9.7

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Roll No. :

Total No. of Questions : 9] [Total No. of Pages : 4

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MCA 5th Semester (Regular)
Examination, February-2022
(CBCS Scheme Current w.e.f. 2018-19)
Paper-18MCA35DA3
**SOFTWARE TESTING AND
QUALITY ASSURANCE**

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. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following questions briefly :
- (a) What is Symbolic Testing ?
- (b) Describe uses of Test Drivers.

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- (c) What do you mean by FTR ?
- (d) What is Software Validation ?
- (e) Explain Regression Testing.
- (f) Describe mutation testing with an example
- (g) What is Level 3 of CMM ?
- (h) Explain role of derived class in OO testing; with an example. 2×8=16

Unit-1

- 2. What is BRT ? How is it useful and used ?
Discuss its various techniques and advantages with suitable examples. 8,8
- 3. Explain the following briefly with suitable examples :
 - (a) Static analysis and its uses
 - (b) Data flow guided testing
 - (c) Stress testing and its applications
 - (d) Features of good test cases 4×4=16

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Unit-II

- 4. What is Software Metric ? How is it useful and used ? Explain various metrics for testing and source code with suitable examples in detail. 8,8
- 5. Describe the following with examples :
 - (i) Software Quality metrics
 - (ii) Alpha and Beta testing
 - (iii) Incremental testing and its merits
 - (iv) Test data generators 4×4=16

Unit-III

- 6. (a) What is SQV ? How is it used and useful ?
Explain its features, importance and applications with examples.
- (b) Explain interface testing and its advantages with examples. 10,6
- 7. Explain the following with suitable examples :
 - (a) Structured walk through techniques and their uses
 - (b) Test case design for OOI 8,8

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