

**Unit-IV**

8. What is ISO ? Explain its standards and models with examples in detail. 10
9. Explain the following briefly with examples :
- (a) CMM levels and their relative merits and demerits
  - (b) Software quality and its parameters 10,6

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Roll No. : .....

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

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MCA 3rd Semester (Regular) Examination,

February-2022

(MCA 2 Year Programme)

(ref. 2020-21)

Paper-21MCA23DA2

**SOFTWARE TESTING AND QUALITY**

ASSURANCE

Elective 1 (ii)

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 Dynamic Testing ?

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- (b) Describe uses of Beta Testing.
- (c) What are advantages of path testing ?
- (d) What is software verification and validation ?
- (e) Explain integration testing and its one use.
- (f) Define mutation testing and list its advantages.
- (g) Describe CMMI and its advantages.
- (h) Explain role of overloading in OO testing with an example.

2×8=16

#### Unit-I

- 2. What is Testing ? How is it useful and used ? Describe BBT and WBT techniques and their advantages with suitable examples. 4,6,6
- 3. Explain the following briefly with suitable examples :
  - (a) Regression testing and its uses
  - (b) Structured approach to software testing
  - (c) Software testing process and its applications
  - (d) Features of good test design 4×4=16

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- 4. Define Software Metric ? How is it useful and used ? Explain various metrics for testing and design phases with suitable examples in detail. 8,8
- 5. Describe the following with examples :
  - (i) Dynamic analysis tools
  - (ii) Test data generators and their role in software development
  - (iii) Incremental testing and its merits and demerits
  - (iv) Testing tools and their uses 4×4=16

#### Unit-III

- 6. (a) What is OOT ? How is it used and useful ? Explain its procedure and advantages with examples
- (b) Explain class testing and web testing with examples.
- 7. Explain the following with suitable examples :
  - (a) Rational Rose Testing tool and its features
  - (b) Security testing and performance testing 10,6

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