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(b) What is Quality Standards ? Compare and contrast CMM with ISO-9000 Standard in detail.

9. What is Software quality assurance (SQA) ? Explain the component, Importance and essence of SQA in detail.

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MCA 3rd Semester (MCA 2 year Programme)

w.e.f. 2021-2022 Examination,

December-2022

SOFTWARE TESTING AND QUALITY ASSURANCE

ELECTIVE 1 (ii)

Paper-2IMCA 23 DA2

Time allowed : 3 hours]

[Maximum marks : 80

*Note : Question number one is compulsory. Attempt five questions, atleast one from each unit. All questions carry equal marks.*

1. (a) What is White box Testing ?
- (b) Why is Testing Metrics important ?
- (c) Define Regression Testing.
- (d) What is Alpha and Beta Testing ?
- (e) How Test Drivers are useful ?
- (f) What is Software Quality ?
- (g) What is the use of Structured walk through technique ?
- (h) What is Performance Testing ?

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Unit-I

2. (a) What is Software testing ? What is the purpose of writing a policy for software testing ? Explain in detail.
- (b) Explain the following in detail :
  - (i) Economics of Testing
  - (ii) Management support for software testing.
3. What is Black box testing ? Explain the main techniques for performing black box testing in detail.

Unit-II

4. (a) What is Software testing strategies ? What approach would you use for testing strategies ? Explain in detail.
- (b) Define testing tools ? Explain the concept of Dynamic analysis tools and test data generators in detail.
5. (a) What are Technical metrics for software ? What factors are used to measure software quality ? Explain in detail.

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- (ii) Explain the concept of following in detail :
  - (i) Metrics for analysis
  - (ii) Testing source code

Unit-III

6. (a) What is Object oriented testing ? Explain the concept of Path testing and state based testing through suitable example in detail.
- (b) Explain the following in detail :
  - (i) Configuration and Compatibility Testing
  - (ii) Web Testing and Functional Testing
7. What is Rational Rose Software ? How Rational Rose Software is useful and used ? Explain through suitable example various types of software testing using Rational rose in detail.

Unit-IV

8. (a) What is Software Quality ? Explain the Software quality challenges and Software Quality Factors in detail.

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