Question Paper Code : 30136

M.C.A. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022.

Elective

MC 4026 — SOFTWARE QUALITY AND TESTING

(Regulations 2021)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Control Flow in Testing.

2. Define System Integration testing.

3. What is Static Testing?

4. How do you frame the test plan?

5. What is Agile Testing?

6. What is Automation Framework?

7. Define Quality in Software Engineering.

8. What is Validation in Software Testing?

9. What are Test cases in Software Development?

10. What is Software Quality Assurance?

PART B — (5 × 13 = 65 marks)

11. (a) Illustrate Data Flow Testing to find the test paths of a program, explain it with a simple example.

Or

(b) Illustrate the steps involved into the process of Control Flow Testing.

12. (a) Explain the working documents required for Verification Testing.

Or

(b) Explain main objectives of the Software Dynamic Testing. Why this testing is related to Validation Testing?

13. (a) Explain the importance of the Automation Testing and the Test cases to Automate in Software Testing?

Or

(b) Illustrate the scope of Modern Software Testing that determines the Planning, Design and Development of the Software.

14. (a) Explain the components of quality assurance.

Or

(b) Explain and compare CMM with PCMM.

15. (a) Explain the fourteen points of W Edwards Demings points for Total Quality Management principles.

Or

(b) Explain the Plan-Do-Check-Act (PDCA) Cycle with the schematic block diagram.

PART C — (1 × 15 = 15 marks)

16. (a) (i) Demonstrate the objective of Software Testing. (7)

(ii) Explain the modern software testing tools and testing trends. (8)

Or

(b) Illustrate the Four different types of frameworks used in Software Automation testing with sample application.

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