MCA   (Sem.–3)

SOFTWARE TESTING & QUALITY ASSURANCE

Subject Code : PGCA-1931
M.Code : 90808
Date of Examination : 07-01-2023

Time : 3 Hrs.   Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying TEN marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

1. **Write short notes on :**

   a) Explain the object oriented scenario based testing.

   b) Write about testing security.

   c) Explain graph based testing and how does it help in testing process?

   d) Discuss about code coverage testing.

   e) Differentiate stress testing from load testing.

   f) What is white box testing?

   g) Explain integrity, interoperability.

   h) What is the need for test plan development?

   i) Explain SQA activities in short.

   j) How to perform client/server system testing?

SECTION-B

2. Define software testing. Explain various level of testing with the help of V-model. Differentiate alpha testing from beta testing and discuss in detail. What do you interpret from the basis path testing? Explain the concept of loop testing.

3. Define quality attributes. Explain correctness, reliability, integrity, interoperability. Discuss how these are related to testing?

4. What do you understand by object oriented testing? Discuss the various methods for class testing.

5. Demonstrate the various black box test cases using Equivalence class partitioning and boundary values analysis to test a module for ATM system.

SECTION-B

6. Explain configuration management for web engineering.

7. Explain software reviews. Which phase conducts the formal technical review step.

8. What are software quality assurance metrics? Explain in detail that how it is related to milestone and deliverable? Describe SQA activities. Explain its ISO 9000 standards in detail.

9. **Write short notes on the list given below:**

   i) SPICE

   ii) Risk projection

   iii) Change control

   iv) ISO 9126.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.