

ગુજરાત વિદ્યાપીઠ : અમદાવાદ  
વ્યવસ્થાપન અને પ્રૌદ્યોગિકી વિજ્ઞાન વિદ્યાશાખા  
કમ્પ્યુટર વિજ્ઞાન વિભાગ

પરીક્ષાર્થી ક્રમાંક

માસ્ટર ઓફ કમ્પ્યુટર એપ્લીકેશન (M.C.A.) : સત્ર-3  
સત્રાંત પરીક્ષા : નવેમ્બર-2023

MCA-303 : Fundamentals of Software Testing (Elective-II)

તા. 03/11/2023

સમય : 12-00 થી 02-30

વાર : શુક્રવાર

કુલગુણ : 60

- Q-1 A Answer the following. (Any 5 out of 7) (05)**
- (1) Which methodology is used to perform Maintenance testing?  
a. Breadth test and depth test      b. Confirmation testing  
c. Retesting      d. Sanity testing
  - (2) Which of the following is not a valid phase of SDLC (Software Development Life Cycle)?  
a. Testing Phase    b. Requirement Phase    c. Deployment phase    d. Testing closure
  - (3) Which of the following testing is also known as white-box testing?  
a. Structural testing      b. Error guessing technique  
c. Design based testing      d. None of the above
  - (4) Functional testing is a -----?  
a. Test design technique    b. Test level    c. SDLC Model    d. Test type
  - (5) What are the different levels of Testing?  
a. Integration testing    b. Unit testing    c. System testing    d. All of the above
  - (6) In which environment we can performed the Alpha testing?  
a. User's end    b. Developer's end    c. User's and developer's end    d. None of the above
  - (7) Does the customer get a 100% bug-free product?  
a. Product is old      b. Developers are super  
c. The testing team is not good      d. All of the above
- Q-1 B Answer the following in three-to-four sentences. (Any 2 out of 4) (04)**
- (1) Discuss the General Principles of Testing.
  - (2) Mention the important points to improve the software quality.
  - (3) Why is software testing important in the software development process?
  - (4) What is software testing?
- Q-1 C Explain in detail. (Any 1 out of 2) (06)**
- (1) Explain various approaches to static testing. Also, mention in which scenario static testing is most suitable.
  - (2) Critically differentiate Testing and Debugging with suitable example.
- Q-2 A Answer the following. (Any 5 out of 7) (05)**
- (1) Which of the following term describes testing?  
a. Finding broken code      b. Evaluating deliverable to find errors  
c. A stage of all projects      d. None of the mentioned
  - (2) \_\_\_\_\_ is a black box testing technique appropriate to all levels of testing?
  - (3) Behavioral testing is  
a. White box testing    b. Black box testing    c. Grey box testing    d. None of the mentioned
  - (4) Acceptance testing is also known as \_\_\_\_\_
  - (5) Which of the following is non-functional testing?  
a. Black box testing    b. Performance testing    c. Unit testing    d. None of the mentioned
  - (6) Write Full Name of SPICE.
  - (7) Unit testing is done by  
a. Users    b. Developers    c. Customers    d. None of the mentioned

- Q-2 B Answer the following in the three-to-four sentences. (Any 2 out of 4) (04)**
- (1) What is Data-driven Testing?
  - (2) What is the difference between manual testing and automated testing?
  - (3) What is black box testing?
  - (4) Differentiate Preventive versus Reactive Approach for test strategies
- Q-2 C Explain in detail. (Any 1 out of 2) (06)**
- (1) Explain the Software Testing Life Cycle (STLC)
  - (2) Explain the difference between functional testing and non-functional testing.
- Q-3 A Answer the following. (Any 5 out of 7) (05)**
- (1) Which of the following is not used in measuring the size of the software  
a. KLOC b. Function Points c. Size of module d. None of the mentioned
  - (2) Software mistakes during coding are known as \_\_\_\_\_
  - (3) Mention the name of an evaluation technique to assess the quality of test cases.
  - (4) Test should be conducted for every possible  
a. Data b. Case c. Variable d. all of the mentioned
  - (5) Which of the following is not a part of bug report?  
a. Test case b. Output c. Software Version d. LOC
  - (6) Which of the following is the way of ensuring that the tests are actually testing code?  
a. Control structure testing b. Complex path testing  
c. Code coverage d. Quality assurance of software
  - (7) Software Debugging is a set of activities that can be planned in advance and conducted systematically. (True or False)
- Q-3 B Answer the following in three-to-four sentences. (Any 2 out of 4) (04)**
- (1) What are the best practices for writing test cases?
  - (2) What is Boundary Value Analysis?
  - (3) What are important testing metrics?
  - (4) What parameters help check the quality of test execution?
- Q-3 C Explain in detail. (Any 1 out of 2) (06)**
- (1) Explain test scenarios, test scripts, and test cases in software testing.
  - (2) What are the different types of test design techniques? When would you use these types of test design techniques?
- Q-4 A Answer the following. (Any 5 out of 7) (05)**
- (1) By collecting \_\_\_\_\_ during software testing, it is possible to develop meaningful guidelines to halt the testing process.
  - (2) Which of the issues must be addressed if a successful software testing strategy is to be implemented?
  - (3) Test cases should uncover errors like  
a. Nonexistent loop termination b. Comparison of different data types  
c. Incorrect logical operators or precedence d. All of the mentioned
  - (4) What is normally considered as an adjunct to the coding step  
a. Integration testing b. Unit testing c. Completion of Testing d. Regression Testing
  - (5) What is Test exit criteria?
  - (6) What is Intuitive and Experience-Based Testing?
  - (7) What is heuristic approach in test strategies?
- Q-4 B Answer the following in three-to-four sentences. (Any 2 out of 4) (04)**
- (1) How do you prioritize test cases?
  - (2) What is exploratory testing? Is it different from ad-hoc testing?
  - (3) What is the purpose of the traceability matrix in software testing?
  - (4) Discuss the advantages and disadvantages of open-source testing tools in a project.
- Q-4 C Explain in detail. (Any 1 out of 2) (06)**
- (1) List some of the popular software testing tools/frameworks, providing a brief description of each.
  - (2) Explain performance and security testing with suitable example.

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