Seat No.

Final Year B.Tech. (Computer Science and Engineering) (Part-IV) (Semester - VII) (CBCS) Examination, January - 2023
SOFTWARE TESTING AND QUALITY ASSURANCE
Sub. Code : 83860

Day and Date : Saturday, 14 - 01- 2023   **Total Marks : 70**

Time : 10.30 a.m. to 01.00 p.m.

Instruction :
1) **All questions are compulsory.**
2) **Figures to the right indicate full marks.**
3) **Assume suitable data if necessary.**

Q1) Solve MCQs. (1 Mark Each)   **[14]**

a) Which objective is most difficult to achieve?
   i) Execute every statement of a program at least once
   ii) Execute every branch statement of a program at least once
   iii) Execute every path of a program at least once
   iv) Execute every condition of a branch statement of a program at least once

b) Software should have
   i) Program + operating system + compiler
   ii) Set of programs + operating system
   iii) Programs + documentation + operating procedures
   iv) None of the above

c) One fault may lead to
   i) One failure   ii) Many failures
   iii) No failure   iv) All of the above

d) In walkthroughs, who presents the document to the members?
   i) Author   ii) Moderator
   iii) Customer   iv) Developer

e) Which is not a characteristic of a good SRS?
   i) Correct   ii) Complete
   iii) Consistent   iv) Brief

P.T.O.

f) Peer reviews are also known as?

    i)   Inspections   ii)   Walkthroughs

    iii)   Informal reviews   iv)   Formal reviews

g) Which is not an accepted strategy for data validity?

    i)   Accept only known valid data

    ii)   Reject known bad data

    iii)   Sanitize all data

    iv)   Reject non-effective data

h) Which test cases are easy to identify?

    i)   Fault revealing   ii)   Modification revealing

    iii)   Modification traversing iv)   Bug revealing

i) Risk should include

    i)   Probability of occurrence of a problem

    ii)   Impact of that problem

    iii)   Test cases

    iv)   (i) and (ii) both

j) Which of the following testing technique can be used in order to determine the validation test?

    i)   Black-box Testing   ii)   White-box Testing

    iii)   Yellow- box Testing   iv)   All of the above

k) Automated test data generation is used to generate

    i)   Test data   ii)   Test cases

    iii)   Test suite   iv)   All of the above

l) Which one is not a load testing metric?

    i)   Number of concurrent users ii)   Wait Time

    iii)   Total links on a page   iv)   Throughput

m) Form based testing does not check

    i)   Data validations   ii)   Hyperlinks on each page

    iii)   Mandatory fields   iv)   Navigation amongst fields

n) Compatibility matrix is created in

    i)   Security testing   ii)   Database testing

    iii)   Performance testing   iv)   Browser testing

Q2) Solve any 2 of the following (7 Marks Each)   **[14]**

    a)   What are the limitations of testing? Discuss with the help of examples.

    b)   What is the purpose of preparing a checklist? Discuss with the help of a checklist?

    c)   What is regression testing? Discuss various categories of selective re-test problem.

Q3) Solve any 2 of the following (7 Marks Each) :   **[14]**

    a)   What are logical bugs? How are they different from syntax bugs?

    b)   Design a checklist for user documentation verification?

    c)   What are various strategies for data validity? Discuss with the help of an example?

Q4) Solve any 2 of the following (7 Marks Each) :   **[14]**

    a)   Describe Java Testing Tools in details.

    b)   What are the Seven Steps for Testing Process.

    c)   Explain the significance of virus and firewall testing.

Q5) Solve any 2 of the following (7 Marks Each)   **[14]**

    a)   List and explain some Automation and Testing Tools.

    b)   Describe Verification Testing, Validation Testing.

    c)   List the advantages of automated test data generation over manual test data generation.

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