Enrollment No......................................

Faculty of Science
End Sem (Odd) Examination Dec-2018
CA3SE07 Software Testing

Programme: BCA   Branch/Specialisation: Computer Application

Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i.   The longer a fault exists in software   **1**
(a) The more tedious its removal becomes
(b) The more costly it is to detect and correct
(c) The less likely it is to be properly corrected
(d) All of these

ii.   Behavioural testing is   **1**
(a) White box testing   (b) Black box testing
(c) Grey box testing   (d) None of these

iii. White Box techniques are also classified as   **1**
(a) Design based testing   (b) Structural testing
(c) Error guessing technique   (d) None of these

iv.   Which granularity level of testing checks the behaviour of module   **1**
cooperation?
(a) Unit Testing   (b) Integration Testing
(c) Acceptance Testing   (d) Regression Testing

v.   Configuration testing deals with hardware while compatibility   **1**
testing deals with software
(a) True   (b) False   (c) Can't say   (d) None of these

vi.   All software has a user interface and therefore must be tested for   **1**
usability.
(a) True   (b) False   (c) Can't say   (d) None of these

P.T.O.

vii. During security testing the tester plays the role of the individual who desires to_____ . **1**
(a) Penetrates the system   (b) Penetrates the listener
(c) Both (a) and (b)   (d) None of these

viii. Testing error messages falls under documentation testing. **1**
(a) True   (b) False   (c) Can't say   (d) None of these

ix. A set of inputs, execution preconditions and expected outcomes is known as a **1**
(a) Test plan   (b) Test case
(c) Test document   (d) Test Suite

x. Acceptance testing is also known as **1**
(a) Grey box testing   (b) White box testing
(c) Alpha Testing   (d) Beta testing

Q.2 i.   What is Dynamic Black-Box Testing? **2**
     ii. Explain test-to-pass and test-to-fail approach of testing. **3**
     iii. What do you mean by Static Black-Box Testing? How you can perform High-Level Review of the Specification? **5**
OR   iv. Explain Equivalence Partitioning and boundary condition testing using suitable example. **5**

Q.3 i.   What's the difference between dynamic white-box testing and debugging? **3**
     ii. What do you mean by static white-box testing? Explain Formal Reviews along with Peer Reviews, Walkthroughs and Inspections in detail. **7**
OR   iii. How do we ensure data and code coverage during testing? Explain different form of Code Coverage using suitable example. **7**

Q.4 i.   Write difference between Configuration Testing and Compatibility Testing? **2**
     ii. Explain Backward and Forward Compatibility using suitable example. **3**
     iii. What do you mean by Data Sharing Compatibility? Explain any three examples of Data Sharing Compatibility. **5**

OR   iv. What is Usability Testing? Explain different types of disabilities could affect software usability? **5**

Q.5 i.   What is Gray-Box Testing? **2**
     ii. In what three ways does good documentation contribute to the product's overall quality? **3**
     iii. What basic elements of a web page can easily be tested with a black-box approach? Explain testing of each element in detail. **5**
OR   iv. Explain about different areas that you need to consider when performing configuration and compatibility testing of a website. **5**

Q.6 i.   What is Beta Testing? **2**
     ii. What are few benefits of using software test tools and automation? **3**
     iii. What is bug-tracking system? List a few reasons that a database bug-tracking system is so much more useful than a paper-based system. **5**
OR   iv. Explain basic states of a software bug's life cycle along with the two common additional states? **5**

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Marking Scheme
CA3SE07 Software Testing

Q.1   i.   The longer a fault exists in software   1
            (d) All of these
      ii.   Behavioral testing is   1
            (b) Black box testing
      iii. White Box techniques are also classified as   1
            (b) Structural testing
      iv.   Which granularity level of testing checks the behavior of module   1
            cooperation?
            (b) Integration Testing
      v.   Configuration testing deals with hardware while compatibility   1
            testing deals with software
            (a) True
      vi.   All software has a user interface and therefore must be tested for   1
            usability.
            (a) True
      vii. During security testing the tester plays the role of the individual   1
            who desires to_____ .
            (a) Penetrates the system
      viii. Testing error messages falls under documentation testing.   1
            (a) True
      ix.   A set of inputs, execution preconditions and expected outcomes is   1
            known as a
            (b) Test case
      x.   Acceptance testing is also known as   1
            (d) Beta testing

Q.2   i.   Dynamic Black-Box Testing Definition   2
      ii.   Test-to-pass   1.5 marks   3
            Test-to-fail   1.5 marks
      iii. Static Black-Box Definition   2 marks   5
            Perform High-Level Review   3 marks
OR   iv.   Equivalence Partitioning and boundary condition testing   5
            Definition   2 marks
            Example   3 marks

Q.3   i.   Difference between dynamic white-box testing and debugging   3
            Definition   3 marks

      ii.   Static white-box testing Definition   1 mark   7
            Formal Reviews   6 marks
OR   iii. Dynamic white-box testing definition   1 mark   7
            Code Coverage (any three) using suitable example 6 marks

Q.4   i.   Definition Configuration Testing and Compatibility Testing   2
      ii.   Definition of Backward and Forward Compatibility 2 marks   3
            Example   1 mark
      iii. Definition of Data Sharing Compatibility   2 marks   5
            Three examples   3 marks
OR   iv.   Definition Usability Testing   2 marks   5
            Any three types of disabilities   3 marks

Q.5   i.   Definition of Gray-Box Testing   2
      ii.   Three ways good documentation contribute to the product's overall 3
            quality
      iii. Name of three basic elements   2 marks   5
            testing of each element   3 marks
OR   iv.   Any five areas 1 mark for each area   (1 mark * 5)   5

Q.6   i.   Definition of Beta Testing   2
      ii.   Any three benefits of using software test tools and automation   3
            1 mark for each   (1 mark *3)
      iii. Definition of bug-tracking system   2 marks   5
            Two reasons   3 marks
OR   iv.   Basic states of a software bug's   3 marks   5
            Additional states   1 mark
            Diagram   1 mark

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