|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |

**Reg.No**

**Sona College of Technology (Autonomous), Salem -5.**

**SET - 2 Department of CSE**

**Continuous Internal Evaluation Test –1**

**U15CS936 – Software Testing**

**Common to All sections (IV Year / VII Semester)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date : 08.09.2021 Duration : 1 ½ hours**  **Time slot : 09.15 am To 10.45 am Marks : 50** | | | | | **Levels of**  **B.T** | **Course Outcomes** |
| **PART – A Answer All Questions (6 x 2 = 12 Marks)** | | | | |  |  |
| 1. | Name any four automated testing tools. | | | | **LOTS** | **1** |
| 2. | Differentiate Fault and failure. | | | | **LOTS** | **1** |
| 3. | Develop a check list of the common coding errors for the language in which you develop your programs. | | | | **HOTS** | **1** |
| 4. | Is a single testing tool sufficient for all the testing activities? Justify your answer. | | | | **HOTS** | **1** |
| 5. | List out the phases of Software Testing Life Cycle (STLC). | | | | **LOTS** | **2** |
| 6. | What are the skills needed to execute a test plan? | | | | **LOTS** | **2** |
| **PART – B Answer All questions (2 x 5 = 10 Marks)** | | | | |  |  |
| 7. | Explain the V-model of software testing. | | | | **LOTS** | **1** |
| 8. | Why do we write test plans? What are the three main reasons? | | | | **LOTS** | **2** |
| **PART – C Answer All questions (2 x 14 = 28 Marks)** | | | | |  |  |
| 9. | (a) | (i) | Identify the Categories of the following bugs.   |  |  | | --- | --- | |  | Bugs | |  | bugs covering all kinds of bugs that cannot be ascribed to a component or to their simple interactions, but result from the totality of interactions between many components such as programs, data, hardware, and the operating systems | |  | These bugs results from inconsistencies or incompatibilities between components. | |  | Required resource not obtained, Wrong resource used, Resource is already in use, Resource dead lock etc | |  | address generation error, i/o device operation / instruction error, waiting too long for a response, incorrect interrupt handling etc. | |  | Forgetting to initialize the variables before first use, assuming that they are initialized elsewhere, initializing to the wrong format, representation or type | |  | Incorrect conversion from one data representation to other, ignoring overflow, improper use of greater-than-or-equal etc | | 7 | **HOTS** | **1** |
|  |  | (ii) | Write a C program that will reverse the given input string. List out and categorize the different bugs that may arise. | 7 | **HOTS** | **1** |
|  |  |  | **(OR)** |  |  |  |
|  | (b) | (i) | Identify and describe test types based on the analysis of a software system's structure or architecture. | 7 | **HOTS** | **1** |
|  |  | (ii) | Compare four software test types (functional, non-functional, structural and change related) with example. | 7 | **HOTS** | **1** |
|  | | | |  |  |  |
| 10. | (a) | (i) | Derive the testcases for a telemedicine system both in functional and  non functional aspects | 7 | **LOTS** | **1** |
|  |  | (ii) | What is the test environment? How do you setup test environment for a banking website? | 7 | **HOTS** | **2** |
|  |  |  | **(OR)** |  |  |  |
|  | (b) | (i) | Explain the Test case and Test Data Development Phase of a Testing Life cycle in terms of its (a) Entry Criteria (b) Exit Criteria (c) Deliverables | 7 | **LOTS** | **1** |
|  |  | (ii) | Develop the structure of a test plan involving scheduling and estimating the system testing process, establishing process standards and describing the tests that should be carried out. | 7 | **HOTS** | **2** |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | | | |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Bloom’s** | **LOTS** | **HOTS** | **Total** |
| **Percentage** | 50 | 50 | 100 |

**Note: Kindly don’t change the above Levels of Bloom’s Taxonomy and Course Outcomes.**

**All Faculty are requested to set the QP’s for 1 ½ units compulsorily. This enables the mapping of the course outcomes and thus its attachment.**