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| logo1 | **PESIT Bangalore South Campus**  Hosur road, 1km before Electronic City, Bengaluru -100  **Department of Computer Science and Engineering** |  |

**INTERNAL ASSESSMENT TEST 1**

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| **Date :** 21/08/19 | **Max Marks: 40** |
| **Subject & Code:** Intr. To Software Testing (15CS552) | **Section:** A,B and C |
| **Name of Faculty:** D.sudaroli Vijayakumar | **Time:** 8:30-10:00 AM |

**Note: *Answer FIVE full questions. Selecting One question from each part.***

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| --- | --- | --- |
|  | **Part I** |  |
| 1a | Differentiate between   1. Alpha, Beta and Acceptance Testing. 2. Test case, Test Suite and Test Procedure. | **4** |
| 1b | Explain Testing and Debugging cycle with a neat diagram. | **4** |
|  | OR |  |
| 2 | Explain the types of metrics used in software testing and their relationship. | **8** |
|  | **Part II** |  |
| 3a | How Requirements, Behavior and correctness are related to each other and Explain the importance of these in carrying out testing process? | **4** |
| 3b | What is a software failure? Mere presence of faults may not lead to failures. Explain with a help of an example. | **4** |
|  | OR |  |
| 4a | Explain Levels of testing with neat diagram? | **4** |
| 4b | Verification and validation are used interchangeably many times. Define these terms and establish their relationship with testing. (w.r.to static and dynamic) | **4** |
|  | **Part III** |  |
| 5 | Differentiate between weak robust equivalence class testing and strong robust equivalence class testing by deriving test cases for the triangle problem. | **8** |
|  | OR |  |
| 6 | Consider a program that takes three numbers as input and print the values of these numbers in descending order. Its input is a triple of positive integers (say x, y and z) and values are from interval [300,700]. Generate boundary value, robust and worst-case test cases. | **8** |
|  | **Part IV** |  |
| 7 | Define software quality. Explain the different measures of software quality | **8** |
|  | OR |  |
| 8 | Consider an example of grading a student in a university. The grading is done as given below:   |  |  | | --- | --- | | **Average Marks** | **Grade** | | 90-100 | Exemplary performance | | 75-89 | Distinction | | 60-74 | First Division | | 50-59 | Second Division | | 0-49 | Fail |   Write the Pseudocode notation of the above-mentioned problem. | **8** |
|  | **Part V** |  |
| 9 | Explain the SATM system. | **8** |
|  | OR |  |
| 10 | Consider a program for the determination of the nature of roots of a quadratic equation. Its input is a triple of positive integers (say a,b and c) and values may be from interval [0,100]. The output may have one of the following words:  [not a quadratic equation, real roots, Imaginary roots, equal roots]  Develop a decision table and generate test cases. | **8** |