

Reg. No.

Question Paper Code

11539

**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022**

Fifth Semester

**Computer Science and Engineering**

(Common to Instrumentation and Control Engineering)

**20CSOE905 - SOFTWARE TESTING TECHNIQUES**

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

- |                                                           | <i>Marks,<br/>K-Level, CO</i> |
|-----------------------------------------------------------|-------------------------------|
| 1. Define Software testing.                               | 2, K1, CO1                    |
| 2. What is a defect? Give an example.                     | 2, K2, CO1                    |
| 3. List the advantages of Equivalence class partitioning. | 2, K1, CO2                    |
| 4. Discuss about Desk checking.                           | 2, K2, CO2                    |
| 5. What is Alpha and Beta Testing?                        | 2, K2, CO3                    |
| 6. What are the goals of Functional testing?              | 2, K2, CO3                    |
| 7. Define work breakdown structure.                       | 2, K1, CO5                    |
| 8. What is the role of test lead?                         | 2, K1, CO5                    |
| 9. List the challenges in automation.                     | 2, K1, CO6                    |
| 10. Define test data generator.                           | 2, K1, CO6                    |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

- |                                                                                                           |             |
|-----------------------------------------------------------------------------------------------------------|-------------|
| 11. a) Explain the Testing principles in detail.                                                          | 13, K2, CO1 |
| <b>OR</b>                                                                                                 |             |
| b) (i) Discuss in detail about the testing axioms.                                                        | 6, K2, CO1  |
| (ii) Explain defect classification in detail.                                                             | 7, K2, CO1  |
| 12. a) With suitable example describe how cause-and-effect graphing and state transition testing is done. | 13, K2, CO2 |
| <b>OR</b>                                                                                                 |             |
| b) Explain the various white box techniques with suitable test cases.                                     | 13, K2, CO2 |

*K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create*

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13. a) Explain the different integration testing strategies for procedures and functions with suitable diagrams. 13,K2,CO3

**OR**

- b) Explain the different levels of testing in detail. 13,K2,CO3

14. a) Describe the concepts of building a test group. 13,K2,CO5

**OR**

- b) Explain about people and organizational issues in testing. 13,K2,CO5

15. a) Describe briefly about various types of test automation and scope of automation. 13,K2,CO6

**OR**

- b) Explain the various generations of automation and the required skills for each. 13,K2,CO6

**PART - C (1 × 15 = 15 Marks)**

16. a) Define Regression testing. Outline the issues to be addressed for developing test cases to perform regression testing. 15,K1,CO4

**OR**

- b) Explain the techniques applied for website testing with suitable test cases. 15,K2,CO4