

Reg. No.

Question Paper Code

11636

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

Fifth Semester

Information Technology

(Common to Computer Science and Engineering)

20ITEL601 - SOFTWARE TESTING

(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. Differentiate errors, faults and failures.     | 2, K2, CO1                    |
| 2. Define defect repository.                      | 2, K1, CO1                    |
| 3. State domain testing.                          | 2, K1, CO2                    |
| 4. What is meant by control flow graph?           | 2, K1, CO2                    |
| 5. Define acceptance testing.                     | 2, K1, CO3                    |
| 6. What do you mean by test harness.              | 2, K1, CO3                    |
| 7. Outline the need for a test plan.              | 2, K2, CO5                    |
| 8. Define test incident report.                   | 2, K1, CO5                    |
| 9. State Test Metrics.                            | 2, K1, CO6                    |
| 10. List the different generations of automation. | 2, K2, CO6                    |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

- |   |             |
|---|-------------|
| 11. a) Explain the software testing principles in detail.         | 13, K2, CO1 |
| <b>OR</b>   |             |
| b) Explain in detail about origin of defects and cost of defects. | 13, K2, CO1 |
| 12. a) Explain in detail about black box testing approach.        | 13, K2, CO2 |
| <b>OR</b>   |             |
| b) Describe in detail about state based testing.                  | 13, K2, CO2 |
| 13. a) Explain in detail about regression testing.                | 13, K2, CO3 |
| <b>OR</b>   |             |
| b) Discuss in detail about integration testing.                   | 13, K2, CO3 |

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

11636

14. a) Explain in detail about Organization structure for testing teams. 13,K2,CO5

**OR**

b) Summarize Test plan components in detail. 13,K2,CO5

15. a) Explain in detail about the requirements for a test tool. 13,K2,CO6

**OR**

b) Explain in detail about productivity metrics. 13,K2,CO6

**PART - C (1 × 15 = 15 Marks)**

16. a) A program reads three numbers A,B,C within the range[1,50] and prints the largest number. Design test cases for this program using BVC, robust testing, worstcase testing and robust worst case testing methods. 15,K3,CO4

**OR**

b) A program has been designed to determine the nature of roots of a quadratic equation which takes 3 input values from the range [0,100].Design the test case using appropriate testing technique(ex: cause effect graphing). 15,K3,CO4