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Reg. No: 2 0 8 W 1 A 1 2 9 9

VELAGAPUDI RAMAKRISHNA

SIDDHARTHA ENGINEERING COLLEGE
(AUTONOMOUS)

IV/IV B.Tech. DEGREE EXAMINATION, MAY - 2023

Seventh Semester

INFORMATION TECHNOLOGY

20IT7402A SOFTWARE TESTING AND AUTOMATION
(CBCS)

Time: 3 hours   *Max. Marks: 70*

Part-A is compulsory

Answer One Question from each Unit of Part - B

Answer to any single question or its part shall be written at one place only

PART-A

10 x 1 = 10M

1. a. Define software testing.   **(CO1 K1)**

    b. State the goals of software testing.   **(CO1 K1)**

    c. Distinguish between verification and validation.   **(CO1 K2)**

    d. When to use equivalence class testing?   **(CO2 K2)**

    e. Is cause-effect graph test a black box testing technique?   **(CO2 K2)**

    f. What is the need of white box testing?   **(CO2 K1)**

    g. List out the popular approaches for automation testing.   **(CO3 K1)**

    h. Mention the test automation approach in agile.   **(CO3 K2)**

    i. List the advantages of Selenium.   **(CO4 K2)**

    j. Which technology can be used for writing the Selenium test cases?

                                                                    (CO4 K2)

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PART-B

4 x 15 = 60M

UNIT-I

2. a. Outline the mechanism for verification of high-level design.

    (CO1 K2) 7M

    b. Elaborate various phases in the software testing life cycle.

    (CO1 K2) 8M

    (or)

3. a. Discuss myths and facts related to software testing. **(CO1 K2) 7M**

    b. Describe the model for software testing in detail.   **(CO1 K2) 8M**

UNIT-II

4. a. Examine the procedure for performing the boundary value analysis.

    (CO2 K2) 7M

    b. Illustrate the implementation of data flow testing.   **(CO2 K2) 8M**

    (or)

5. a. Inspect the different criteria used for logic coverage. **(CO2 K2) 7M**

    b. Demonstrate the functionality of decision table based testing.

    (CO2 K2) 8M

UNIT-III

6.   a.   Define automation testing. Assess the approach for test automation.

                                        (CO3 K2) 7M

    b.   How to implement test automation in agile? Label the Agile automation framework.   **(CO3 K3) 8M**

(or)

7.   a.   Outline and discuss the various stages of test automation life cycle.

                                        (CO3 K2) 7M

    b.   Choose an application and explain the procedure for designing the test cases.   **(CO3 K3) 8M**

UNIT-IV

8.   a.   List out and explore the usage of components in SeleniumIDE.

                                         (CO4 K2) 7M

    b.   Diagnose the task of working with WebDriver in Selenium.

                                         (CO4 K2) 8M

(or)

9.   a.   Identify and elaborate the utilization of different types of Locators in Selenium.   **(CO4 K2) 7M**

    b.   Elucidate the process of using Selenium for testing an enterprise application.   **(CO4 K2) 8M**

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