

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2023-24 ONLY)

SUBJECT CODE

23UBC516

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2025

B.C.A
SEMESTER: V

MAXIMUM MARKS: 75
TIME : 3 HOURS

PART – III
SOFTWARE TESTING

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. Which of the following software process models is best suited for projects with rapidly changing requirements?
a) Waterfall Model b) Incremental Model c) Spiral Model d) Prototyping Model
2. What does cohesion in modular design refer to?
a) Degree of interaction between different modules b) Degree of dependency between modules
c) Degree to which elements of a module belong together d) Extent to which code is reused
3. In Black Box Testing, Boundary Value Analysis is used to:_____.
a) Test internal logic of the program b) Verify memory leaks
c) Test values at the edge of input ranges d) Measure test coverage
4. Which of the following is a product metric in software testing?
a) Effort spent on testing b) Number of defects found per module
c) Test case execution time d) Code maintainability
5. What is the main purpose of Page Object Model (POM) in Selenium?
a) To test database operations b) To identify web elements using image comparison
c) To automate keyboard and mouse events d) To separate test scripts from UI elements

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. What is the purpose of using the Spiral Model in software development?
7. Define the term Attribute.
8. What is Boundary Value Analysis in black-box testing?
9. Mention two features of an automation tool.
10. How do you handle alerts using Selenium?

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Compare and contrast the Prototyping, RAD, and Incremental models..

(OR)

- b) Discuss the various layers of software engineering and their interrelationships.

12. a) Discuss the behavioral modeling in system analysis and design.

(OR)

- b) Explain the different types of software design concepts like abstraction, refinement, and modularity.

(CONTD.....2)

- 13.a) Explain the different levels of software testing with suitable scenarios.
(OR)
b) Compare QA with QC.
14. a) What are the phases and components of a test plan?
(OR)
b) Write short notes on any three software metrics used in software testing.
15. a) How is Page Object Model (POM) implemented in Selenium? Explain its advantages.
(OR)
b) Describe the process of database testing using Selenium with an example.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.****(K4 (Or) K5)**

16. a) Explain the layered technology in software engineering with a suitable diagram.
(OR)
b) Explain the phases of Spiral model.
- 17.a) Write detail notes on data flow diagram.
(OR)
b) Explain Cohesion and Coupling.
18. a) Illustrate Black Box Testing techniques such as Equivalence Partitioning and Boundary Value Analysis with examples.
(OR)
b) Inspect the phases of Software Testing Life Cycle (STLC).
- 19.a) Describe the role of verification and validation in software testing with examples.
(OR)
b) Discuss the features of automation testing tools.
- 20.a) Demonstrate the process of launching AUT (Application Under Test) and inspecting elements in Selenium WebDriver.
(OR)
b) Elucidate the steps involved in performing database testing using Selenium.