



**FINAL EXAMINATION**  
**NOVEMBER 2023**

---

<b>COURSE TITLE</b>	<b>SOFTWARE TESTING</b>
<b>COURSE CODE</b>	<b>RCIT1653</b>
<b>DATE/DAY</b>	<b>19 FEBRUARY 2024 / MONDAY</b>
<b>TIME/DURATION</b>	<b>09:00 AM - 11:00 AM / 02 Hour(s) 00 Minute(s)</b>

---

**INSTRUCTIONS TO CANDIDATES :**

1. Please read the instruction under each section carefully.
2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the invigilator.
3. Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 6 Printed Pages including front page)

**\*\*\*DO NOT OPEN THE QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO\*\*\***

This question paper consists of TWO (2) sections. Answer ALL questions in the answer booklet provided. [50 MARKS]

SECTION A

(20 Marks)

There are TWENTY (20) questions on this part of the examination paper. Answer ALL questions in the answer booklet.

1. What is the primary goal of software testing?
  - A. Developing software
  - B. Finding bugs
  - C. Writing code
  - D. Debugging
  
2. Which testing phase is responsible for ensuring that the software works well in the production environment?
  - A. Unit testing
  - B. Integration testing
  - C. System testing
  - D. Acceptance testing
  
3. Which testing level verifies if different components can work together?
  - A. Unit testing
  - B. Integration testing
  - C. System testing
  - D. Regression testing
  
4. What is the purpose of regression testing?
  - A. Finding defects
  - B. Verifying if new changes break existing functionality
  - C. Validating the entire system
  - D. Executing test cases for the first time

10. What is equivalence partitioning used for in testing?
- A. Identifying security vulnerabilities
  - B. Generating test cases based on input conditions
  - C. Testing user interface components
  - D. Verifying system performance
11. Boundary value analysis is used to test \_\_\_\_\_.
- A. Extreme values
  - B. Normal values
  - C. Typical values
  - D. Random values
12. Which testing technique is focused on exploring the system and discovering defects without predefined test cases?
- A. Black-box testing
  - B. White-box testing
  - C. Grey-box testing
  - D. Ad-hoc testing
13. In which testing technique are test cases derived from the software's specifications or requirements?
- A. Black-box testing
  - B. White-box testing
  - C. Grey-box testing
  - D. Exploratory testing
14. What is the purpose of a test plan?
- A. Identifying defects
  - B. Executing test case
  - C. Guiding the testing process
  - D. Writing code

20. Which metric is commonly used to measure the performance of a system in load testing?
- A. Memory usage
  - B. Response time
  - C. Number of test cases executed
  - D. Number of defects found

**SECTION B**

**(30 Marks)**

There are **TWO (2)** questions in this part of the examination paper. Answer **ALL** questions in the answer booklet.

1. Equivalence partitioning is one of the testing techniques in the black box testing.
- a) Define the concept of equivalence partitioning in software testing. (3 marks)
  - b) Provide **ONE (1)** example scenario of equivalence partitioning in software testing. The example must consist of 2 valid and 2 invalid partitions. (8 marks)
  - c) Describe how the example in Q1(b) aids in designing efficient test cases. (4 marks)
2. Test data is important in ensuring the effectiveness of software testing.
- a) Define the concept of test data in software testing, (3 marks)
  - b) Provide **FOUR (4)** examples of scenarios where insufficient or inaccurate test data can lead to testing challenges. (8 marks)
  - c) Describe the strategies to address the issues mentioned in Q2(a). (4 marks)

\*\*\* END OF QUESTION PAPER \*\*\*