# 43 Lecture - CS504

# **Important Mcqs**

### 1. What is a syntax error in software development?

- a) An error that occurs during runtime
- b) An error in the code structure or grammar
- c) An error caused by logical flaws in the code
- d) An error that occurs due to invalid input

Solution: b) An error in the code structure or grammar

## 2. Which bug class is related to incorrect implementation or sequencing of code statements?

- a) Syntax errors
- b) Runtime errors
- c) Logic errors
- d) Boundary errors

Solution: c) Logic errors

#### 3. What is a runtime error?

- a) An error that occurs during code compilation
- b) An error caused by logical flaws in the code
- c) An error that occurs during code execution
- d) An error that occurs due to invalid input

Solution: c) An error that occurs during code execution

#### 4. Which bug class is associated with input values exceeding acceptable ranges?

- a) Syntax errors
- b) Runtime errors

- c) Logic errors
- d) Boundary errors

# Solution: d) Boundary errors

### 5. What is the primary cause of a logic error in software code?

- a) Incorrect code structure
- b) Invalid input data
- c) Incorrect implementation of algorithms or conditions
- d) Memory-related issues

### Solution: c) Incorrect implementation of algorithms or conditions

#### 6. What is a type mismatch error in programming languages?

- a) A syntax error caused by incorrect use of brackets or parentheses
- b) A runtime error resulting from invalid input data
- c) An error that occurs when a variable is assigned an incompatible data type
- d) An error caused by exceeding the system's memory limit

#### Solution: c) An error that occurs when a variable is assigned an incompatible data type

#### 7. Which bug class is related to unexpected program termination or crashes?

- a) Syntax errors
- b) Runtime errors
- c) Logic errors
- d) Boundary errors

# Solution: b) Runtime errors

#### 8. What is a null pointer exception in programming?

- a) A syntax error caused by using an undefined variable
- b) A runtime error that occurs due to an infinite loop
- c) A runtime error caused by accessing memory location with a null pointer

d) A logic error resulting from incorrect implementation of conditions

#### Solution: c) A runtime error caused by accessing memory location with a null pointer

- 9. Which bug class is most likely to be detected during code reviews or static analysis?
  - a) Syntax errors
  - b) Runtime errors
  - c) Logic errors
  - d) Boundary errors

Solution: a) Syntax errors

### 10. What is the primary goal of categorizing bug classes in software development?

- a) Identifying the root cause of defects
- b) Aiding in effective debugging and prevention strategies
- c) Prioritizing bug fixes based on their severity
- d) Enhancing code performance and optimization

Solution: b) Aiding in effective debugging and prevention strategies