42 Lecture - CS504

Important Mcqs

1. What is the primary goal of debugging in software development?

a) Writing new code

b) Finding and fixing defects

c) Designing the software architecture

d) Conducting code reviews

Solution: b) Finding and fixing defects

2. Which of the following is NOT a common type of software defect encountered during debugging?

a) Syntax errors

b) Runtime errors

c) Logic errors

d) Design errors

Solution: d) Design errors

3. What is a breakpoint in the context of debugging?

a) A tool for measuring code complexity

b) A bug tracking system

c) A location in the code where program execution pauses for inspection

d) A method for optimizing code performance

Solution: c) A location in the code where program execution pauses for inspection

4. Which debugging technique involves adding print statements to the code to track the program's flow and variable values?

a) Static analysis

b) Code profiling

c) Dynamic analysis

d) Tracing

Solution: d) Tracing

5. When is the best time to start debugging?

a) During code implementation

b) After code is deployed to production

c) During code reviews

d) As soon as defects are detected

Solution: a) During code implementation

6. What does a debugger do during the debugging process?

a) Fixes defects automatically

b) Executes test cases

c) Analyzes code and helps find defects

d) Checks code for security vulnerabilities

Solution: c) Analyzes code and helps find defects

7. What is the purpose of stepping through code in a debugger?

a) To measure code coverage

b) To check for syntax errors

c) To execute the code faster

d) To understand code flow and identify issues

Solution: d) To understand code flow and identify issues

8. Which debugging technique involves analyzing the memory usage, CPU usage, and execution time of a program?

a) Code profiling

b) Static analysis

c) Tracing

d) Dynamic analysis

Solution: a) Code profiling

9. What is a core dump in debugging?

a) A log file that contains debugging information

b) A tool to automatically detect and fix defects

c) An executable file containing the state of the program's memory at the time of a crash

d) A method for tracing variable values

Solution: c) An executable file containing the state of the program's memory at the time of a crash

10. Which approach helps prevent future defects and improve debugging efficiency?

a) Test-driven development

b) Code refactoring

c) Regression testing

d) User acceptance testing

Solution: b) Code refactoring