

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