

Software Engineering Fundamentals

Software Engineering · Answer Key · 8 Questions

1. What is the primary purpose of following a Software Development Life Cycle (SDLC)?

- A) To eliminate all software bugs permanently
- B) To ensure daily code commits are made by developers
- C) To provide a structured approach to building and maintaining software**
- D) To predict future market trends for software products

2. Which phase in the Software Development Life Cycle focuses on defining what the software system should do?

- A) Coding
- B) Deployment
- C) Requirements Gathering**
- D) Testing

3. What is the main objective of software testing?

- A) To write code faster and more efficiently
- B) To identify defects and ensure software quality and functionality**
- C) To design the user interface and user experience
- D) To manage project budgets and timelines

4. What is the primary function of a Version Control System (VCS) like Git?

- A) To automatically generate user manuals
- B) To manage and track changes to source code and other project files**
- C) To encrypt all network traffic for security purposes
- D) To compile software applications into executable files

5. The principle of breaking down a software system into smaller, independent, and manageable parts is known as what?

- A) Monolithic architecture
- B) Abstraction
- C) Modularity**
- D) Encapsulation

6. In Object-Oriented Programming (OOP), what concept allows a new class to acquire properties and behaviors from an existing class?

- A) Polymorphism
- B) Abstraction
- C) Encapsulation
- D) Inheritance**

7. What type of software maintenance involves modifying software to correct faults and errors discovered after deployment?

- A) Adaptive maintenance
- B) Perfective maintenance
- C) Corrective maintenance**
- D) Preventive maintenance

8. In computer science, what is a well-defined sequence of instructions used to solve a specific problem or perform a computation?

- A) A variable
- B) A compiler
- C) An algorithm**
- D) An operating system