

Fundamentals of Software Engineering

Software Engineering · Practice Test · 18 Questions

1. What is the primary purpose of a compiler in software engineering?

- A) To play music from a computer
- B) To translate source code into machine code
- C) To draw pictures on the screen
- D) To connect the computer to the internet

2. Which phase of the software development life cycle (SDLC) comes immediately after the coding phase?

- A) Requirements gathering
- B) System design
- C) Testing
- D) Deployment

3. What is an 'algorithm' in the context of computer programming?

- A) A type of hardware component
- B) A step-by-step set of instructions to solve a problem
- C) A physical storage device
- D) A color scheme for websites

4. What is a 'bug' in a computer program?

- A) A tiny insect inside the computer case
- B) A feature that makes the program faster
- C) An error or flaw that prevents the program from working correctly
- D) A type of high-level programming language

5. Which of these is a popular high-level programming language often used for web development and data analysis?

- A) Python
- B) Brick
- C) Hammer
- D) Screwdriver

6. What does the term 'debugging' mean in software engineering?

- A) Designing a new user interface
- B) Writing the first line of code
- C) The process of finding and removing errors in code
- D) Installing a new operating system

7. What is a 'variable' used for in a computer program?

- A) To permanently damage the hardware
- B) To store information that can be changed
- C) To measure the speed of the internet
- D) To shut down the computer automatically

8. What is the purpose of a version control system like Git?

- A) To keep track of changes to files over time
- B) To prevent computers from overheating
- C) To speed up the internet connection
- D) To create 3D animations

9. What is the main function of an Operating System (OS)?

- A) To browse the internet only
- B) To manage computer hardware and software resources
- C) To write code for mobile apps
- D) To store photos in the cloud

10. What is meant by the term 'open source' software?

- A) Software that costs a lot of money to download
- B) Software where the source code is made available for anyone to inspect and modify
- C) Software that can only be used on weekends
- D) Software that is hidden from the user

11. Which language is primarily used for creating the structure and content of web pages?

- A) HTML
- B) Java
- C) Python
- D) SQL

12. What is a 'loop' in programming?

- A) A way to break the computer
- B) A set of instructions that repeats until a condition is met
- C) A tool to delete files permanently
- D) A physical connection between two computers

13. In software engineering, what is 'documentation'?

- A) A collection of written information explaining how software works
- B) A list of all the bugs found in a game
- C) A method for upgrading hardware
- D) A type of programming language

14. What is a 'database' used for in software engineering?

- A) To organize and store large amounts of data
- B) To display graphics on a monitor
- C) To provide power to the motherboard
- D) To connect a mouse to the computer

15. What is the 'user interface' (UI) of a software application?

- A) The internal wiring of the computer
- B) The part of the software that the user interacts with
- C) The company that sells the software
- D) The electricity that runs the program

16. What does the acronym 'API' stand for in software development?

- A) Application Programming Interface
- B) Automated Program Installation
- C) Advanced Processing Instruction
- D) Applied Peripheral Interaction

17. Which of these best describes a 'comment' in computer code?

- A) An error message sent to the user
- B) A note written by a programmer to explain the code to humans
- C) A command that tells the computer to stop running
- D) A graphic icon used in a menu

18. What is 'cloud computing' in the context of software?

- A) Using servers hosted on the internet to store and process data
- B) A weather forecasting software program
- C) Building computers in the sky
- D) A type of hardware made from recycled materials