

## Unit – I

1. Which of the following is NOT a software process model?

- A) Waterfall model
- B) Incremental model
- C) Spiral model
- D) Modular model

**Answer: D**

2. The Spiral model was proposed by:

- A) Royce
- B) Boehm
- C) Pressman
- D) Sommerville

**Answer: B**

3. The Waterfall model is best suited for:

- A) Small projects with well-defined documentation
- B) Projects with low risk and changing requirements
- C) Projects with no deadlines
- D) None of the above

**Answer: A**

4. Which model is characterized by short iterative cycles and quick releases?

- A) Waterfall model
- B) Incremental model
- C) Agile model
- D) V-model

**Answer: C**

5. In the context of software engineering, the term "process model" refers to:

- A) A set of tools for coding
- B) A way to create a software product
- C) A standardized format for documentation
- D) A strategy for testing software

**Answer: B**

6. Which of the following is NOT a characteristic of good software?

- A) Maintainability
- B) Usability
- C) Complexity
- D) Reliability

**Answer: C**

7. Portability in software refers to:

- A) The ability to use the software on multiple hardware platforms
- B) The ease of moving the software from one place to another
- C) The software's ability to recover from failures
- D) The ability to integrate with other software

**Answer: A**

8. What does "robustness" in software imply?

- A) Ease of use
- B) Efficient performance
- C) Ability to handle errors gracefully
- D) Compatibility with other systems

**Answer: C**

9. Which of the following is a quality attribute of software?

- A) Functionality
- B) Modularity
- C) Documentation
- D) Redundancy

**Answer: A**

10. The degree to which software can be understood, corrected, adapted, and enhanced is referred to as:

- A) Usability
- B) Reliability
- C) Maintainability
- D) Efficiency

**Answer: C**

11. Which of the following is NOT considered a software component?

- A) Modules
- B) Libraries
- C) Servers
- D) Functions

**Answer: C**

12. What is the main advantage of using software components?

- A) Increased cost
- B) Improved performance
- C) Reusability
- D) Complexity

**Answer: C**

13. The process of assembling software from pre-existing components is known as:

- A) Integration
- B) Composition
- C) Compilation
- D) Linkage

**Answer: B**

**What is the correct sequence of SDLC phases?**

- a) Design -> Implementation -> Testing -> Requirement Analysis -> Maintenance
- b) Requirement Analysis -> Design -> Implementation -> Testing -> Maintenance
- c) Implementation -> Design -> Requirement Analysis -> Testing -> Maintenance
- d) Testing -> Maintenance -> Requirement Analysis -> Design -> Implementation

**Answer: b) Requirement Analysis -> Design -> Implementation -> Testing -> Maintenance**

14. Which component model is used extensively in Windows operating systems?

- A) JavaBeans
- B) CORBA
- C) COM
- D) .NET

**Answer: C**

**Which of the following best describes the Testing phase in SDLC?**

- a) Identifying requirements for the software
- b) Designing the software architecture
- c) Validating the functionality and fixing bugs
- d) Writing the source code for the software

**Answer: c) Validating the functionality and fixing bugs**

15. Components that interact via interfaces to achieve a common goal in software systems are known as:

- A) Classes
- B) Objects
- C) Modules
- D) Components

**Answer: D**

Which of the following is a primary goal of software engineering?

- a) To write as much code as possible
- b) To produce high-quality software on time and within budget
- c) To avoid testing software
- d) To focus only on hardware integration

**Answer: b) To produce high-quality software on time and within budget**

16. Application software is designed to:

- A) Operate hardware
- B) Provide a platform for other software
- C) Help the user perform specific tasks
- D) Manage system resources

**Answer: C**

17. Which of the following is an example of system software?

- A) Word processor

- B) Operating system
- C) Web browser
- D) Spreadsheet

**Answer: B**

18. An embedded application is typically found in:

- A) Desktop computers
- B) Mainframes
- C) Mobile devices
- D) Microwave ovens

**Answer: D**

19. The primary purpose of application software is to:

- A) Support the computer's basic functions
- B) Perform tasks for the user
- C) Manage network resources
- D) Protect against malware

**Answer: B**

**Which term describes the ability of software to evolve and adapt to changes over time?**

- a) Scalability
- b) Maintainability
- c) Portability
- d) Reliability

**Answer: b) Maintainability**

20. Software designed for end-users to perform a specific task is called:

- A) Middleware
- B) System software
- C) Utility software
- D) Application software

**Answer: D**

**Which of the following is an advantage of the Spiral Model?**

- a) It does not require customer feedback.
- b) It handles risks effectively through iterative development.
- c) It is the fastest development model.
- d) It eliminates the need for testing.

**Answer: b) It handles risks effectively through iterative development.**

21. Which layer of software engineering focuses on tools and methods for software development?

- A) Application layer
- B) Platform layer
- C) Process layer
- D) Methods layer

**Answer: D**



22. The process layer in software engineering encompasses:

- A) Programming tools
- B) The activities, actions, and tasks required to build high-quality software
- C) User requirements
- D) System hardware

**Answer: B**

23. At which layer do technologies like compilers and debuggers reside?

- A) Tools layer
- B) Process layer
- C) Methods layer
- D) Quality layer

**Answer: A**

24. The application layer in software engineering is concerned with:

- A) User interfaces
- B) Business logic
- C) Data storage
- D) Network protocols

**Answer: A**

25. Which of the following is NOT part of the layered technology in software engineering?

- A) Process layer
- B) Methods layer
- C) Quality layer
- D) Debugging layer

**Answer: D**

26. Software processes involve:

- A) A sequence of steps required to develop software
- B) Tools used for coding
- C) Methods for documenting software
- D) Standards for quality assurance

**Answer: A**

27. Methods in software engineering are:

- A) Techniques for coding
- B) Structured approaches to solving software engineering problems
- C) Tools for project management
- D) Processes for quality assurance

**Answer: B**

28. Tools in software engineering typically refer to:

- A) Hardware components
- B) Software programs that support the software development process
- C) Methods for documenting software
- D) Standards for quality assurance

**Answer: B**

29. An example of a software engineering tool is:

- A) An algorithm
- B) A design method
- C) A compiler
- D) A process model

**Answer: C**

30. The primary goal of using processes, methods, and tools in software engineering is to:

- A) Increase complexity
- B) Reduce cost
- C) Improve productivity and quality
- D) Standardize documentation

**Answer: C**

31. The generic view of software engineering includes:

- A) Requirements analysis, design, coding, testing, and maintenance
- B) Just coding and testing
- C) Only maintenance
- D) Documentation only

**Answer: A**

32. Which phase is NOT part of the generic software engineering framework?

- A) Coding
- B) Design
- C) Marketing
- D) Testing

**Answer: C**

33. The primary objective of the maintenance phase in software engineering is to:

- A) Develop new software
- B) Correct faults, improve performance, and adapt to a changed environment
- C) Perform testing
- D) Design the architecture

**Answer: B**

34. Requirements analysis in software engineering involves:

- A) Determining user needs and documenting them
- B) Writing code
- C) Testing software
- D) Maintaining software

**Answer: A**

35. The design phase in software engineering primarily focuses on:

- A) Coding
- B) Identifying user needs
- C) Developing a blueprint for the software solution
- D) Testing software

**Answer: C**

36. The Waterfall model is also known as:

- A) Linear sequential model
- B) Iterative model
- C) Agile model
- D) Prototype model

**Answer: A**

37. In the Waterfall model, each phase must be completed:

- A) Simultaneously
- B) Before the next phase begins
- C) Independently of the others
- D) In any order

**Answer: B**

38. A major disadvantage of the Waterfall model is:

- A) It is not suitable for large projects
- B) It does not handle changing requirements well
- C) It is too flexible
- D) It lacks structure

**What is the purpose of the "Maintenance" component in software engineering?**

- a) Developing the system architecture
- b) Fixing defects and improving system performance after deployment
- c) Managing system resources
- d) Testing new code

**Answer: b) Fixing defects and improving system performance after deployment**

39. The Incremental Model delivers:

- a) The entire system at once
- b) A system without testing
- c) Only a prototype to the customer
- d) The system in small, manageable parts or increments

**Answer: D**

40. What is the main focus of the Prototype Model?

- a) High-level design without any coding
- b) Delivering a system without client feedback
- c) Building a working prototype to refine requirements
- d) Avoiding changes during the development phase

**Answer: C**