

第一部分

一、客观题

- 1: Which of these are standards for assessing software processes?
 - A) SEI
 - B) SPICE
 - C) ISO 19002
 - D) ISO 9001
 - E) both b and d
- 2: Which of the items listed below is not one of the software engineering layers?
 - A) Process
 - B) Manufacturing
 - C) Methods
 - D) Tools
- 3: Process models are described as agile because they
 - A) eliminate the need for cumbersome documentation
 - B) emphasize maneuverability and adaptability
 - C) do not waste development time on planning activities
 - D) make extensive use of prototype creation
- 4: Which of these are the 5 generic software engineering framework activities?
 - A) communication, planning, modeling, construction, deployment
 - B) communication, risk management, measurement, production, reviewing
 - C) analysis, designing, programming, debugging, maintenance
 - D) analysis, planning, designing, programming, testing
- 5: Which of these terms are level names in the Capability Maturity Model?
 - A) Performed
 - B) Repeated
 - C) Reused
 - D) Optimized
 - E) both a and d
- 6: Which of these are objectives of Team Software Process?
 - A) Allow better time management by highly trained professionals
 - B) Accelerate software process improvement
 - C) Build self-directed software teams
 - D) Show managers how to reduce costs and sustain quality
 - E) both b and c
- 7: It is generally accepted that one cannot have weak software processes and create high quality end products.
 - A) True
 - B) False
- 8: Process technology tools allow software organizations to compress schedules by skipping unimportant activities.

A) True

B) False

9: Software processes can be constructed out of pre-existing software patterns to best meet the needs of a software project.

A) True

B) False

10: The best software process model is one that has been created by the people who will actually be doing the work.

A) True

B) False

11: Software engineering umbrella activities are only applied during the initial phases of software development projects.

A) True

B) False

12: Which of these is not a characteristic of Personal Software Process?

A) Emphasizes personal measurement of work product

B) Practitioner requires careful supervision by the project manager

C) Individual practitioner is responsible for estimating and scheduling

D) Practitioner is empowered to control quality of software work products

二、主观题

13: Why has the Personal Software Process has not been widely adopted by industry?

14: What are the names of the six levels of the SEI Capability Maturity Model Integration (CMMI)? In your own words, briefly describe each.

15: Describe the “plan-do-check-act” cycle from in the ISO 9001:2000 standard as it is applied to assessing the quality management elements of a software project.

16: List three areas in which process models may differ from one another.

第二部分

一、客观题

1: The rapid application development model is

A) Another name for component-based development.

B) A useful approach when a customer cannot define requirements clearly.

C) A high speed adaptation of the linear sequential model.

D) All of the above.

2: The spiral model of software development

A) Ends with the delivery of the software product

B) Is more chaotic than the incremental model

- C) Includes project risks evaluation during each iteration
- D) All of the above

3: The component-based development model is

- A) Only appropriate for computer hardware design.
- B) Not able to support the development of reusable components.
- C) Works best when object technologies are available for support.
- D) Not cost effective by known quantifiable software metrics.

4: In the Unified Process model requirements are determined iteratively and may span more than one phase of the process.

- A) True
- B) False

5: The linear sequential model of software development is also known as the

- A) Classical life cycle model
- B) Fountain model
- C) Spiral model
- D) Waterfall model
- E) both a and d

6: Which of these is not one of the phase names defined by the Unified Process model for software development?

- A) Inception phase
- B) Elaboration phase
- C) Construction phase
- D) Validation phase

7: The concurrent development model is

- A) Another name for the rapid application development model.
- B) Often used for the development of client/server applications.
- C) Only used for development of parallel or distributed systems.
- D) Used whenever a large number of change requests are anticipated.

8: The incremental model of software development is

- A) A reasonable approach when requirements are well defined.
- B) A good approach when a working core product is required quickly.
- C) The best approach to use for projects with large development teams.
- D) A revolutionary model that is not used for commercial products.

9: Evolutionary software process models

- A) Are iterative in nature
- B) Can easily accommodate product requirements changes
- C) Do not generally produce throwaway systems
- D) All of the above

10: The formal methods model of software development makes use of mathematical methods to

- A) Define the specification for computer-based systems
- B) Develop defect free computer-based systems
- C) Verify the correctness of computer-based systems
- D) All of the above

- 11: The prototyping model of software development is
- A) A reasonable approach when requirements are well defined.
 - B) A useful approach when a customer cannot define requirements clearly.
 - C) The best approach to use for projects with large development teams.
 - D) A risky model that rarely produces a meaningful product.
- 12: The linear sequential model of software development is
- A) A reasonable approach when requirements are well defined.
 - B) A good approach when a working program is required quickly.
 - C) The best approach to use for projects with large development teams.
 - D) An old fashioned model that cannot be used in a modern context.

二、主观题

- 13: Describe the phases of the prototyping model for software development?
- 14: Describe the role of risk analysis in evolutionary process models like the spiral model.
- 15: Describe the 5 phases of the Unified Process model for software engineering?
- 16: What are the primary advantages of the component-based process model for software engineering?
- 17: Why are incremental process models considered by many to be the best approach to software development in a modern context?