



قائمة الاسئلة

هندسة برمجيات - كلية الهندسة - قسم الكهرباء - المستوى ... الرابع - .. التخصص حاسبات - .. الزم ثلاث ساعات - .. درجة هذا الاختبار (50)

د. علي الحمدي

- 1) ----- ensures that the S/W meets the customer's expectations.
- verification
 - validation
 - a and b
 - none of the above

- 1) - a
2) + b
3) - c
4) - d

- 2) ----- ensure(s) that the S/W is "fit for purpose".
- verification
 - validation
 - a and b
 - none of the above

- 1) - a
2) - b
3) + c
4) - d

- 3) Black-box testing can be achieved using -----.
- user recommendations
 - program code execution
 - programmer experience
 - none of the above

- 1) - a
2) - b
3) - c
4) + d

- 4) Test cases for component testing are applied to -----.
- object
 - component
 - interface
 - all of the above.

- 1) - a
2) - b
3) + c
4) - d

5)



S/W engineering is a ----- process throughout the whole S/W lifetime.

- a. linear
- b. concurrent
- c. cyclic
- d. spiral

- 1) - a
- 2) - b
- 3) - c
- 4) + d

6) The elements of a legacy system can be modeled using a ----- pattern.

- a. client-server
- b. repository
- c. MVC
- d. none of the above

- 1) - a
- 2) - b
- 3) - c
- 4) + d

7) Program refactoring means -----.

- a. adding functionality
- b. improving functionality
- c. a and b
- d. none of the above

- 1) - a
- 2) + b
- 3) - c
- 4) - d

8) Dependability main properties are measured -----.

- a. quantitatively
- b. qualitatively
- c. a and b
- d. neither a nor b

- 1) - a
- 2) + b
- 3) - c
- 4) - d

9)



Some dependability general properties are measured -----.

- a. quantitatively
- b. qualitatively
- c. a and b
- d. neither a nor b

- 1) - a
- 2) - b
- 3) + c
- 4) - d

10) The business process layer of a sociotechnical systems includes business -----.

- a. rules
- b. policies
- c. norms
- d. none of the above

- 1) - a
- 2) - b
- 3) - c
- 4) + d

11) If you participate in developing a critical system or very large system, you would suggest adapting ----- approach.

- a. plan-driven
- b. Agile
- c. formal
- d. none of the above

- 1) + a
- 2) - b
- 3) - c
- 4) - d

12) For most real-time systems ----- software design process is used.

- a. top-down
- b. bottom-up
- c. a and b
- d. neither a nor b

- 1) - a
- 2) + b
- 3) - c
- 4) - d

13) H/W components on a real-time system deliver ----- the equivalent S/W.

- a. much better performance than
- b. much worse performance than
- c. same performance as
- d. none of the above

- 1) + a
- 2) - b
- 3) - c
- 4) - d



- 14) Real-time patterns are -----.
- a. object-oriented
 - b. aspect-oriented
 - c. components-oriented
 - d. process-oriented
- 1) - a
2) - b
3) - c
4) + d
- 15) ----- pattern can be used to monitor exam hall remotely.
- a. observe and react
 - b. environment control
 - c. process pipeline
 - d. none of the above
- 1) + a
2) - b
3) - c
4) - d
- 16) Safety assurance process is done during -----.
- a. V&V processes
 - b. code testing
 - c. a and b
 - d. neither a nor b
- 1) + a
2) - b
3) - c
4) - d
- 17) QC activity(es) include(s) -----.
- a. review
 - b. inspection
 - c. testing
 - d. all of the above
- 1) - a
2) - b
3) - c
4) + d
- 18)



1) The purpose of S/W review and inspection is ----- quality.

- a. improve
- b. assess
- c. check
- d. all of the above

- 1) ☒ a
- 2) ☐ b
- 3) ☐ c
- 4) ☐ d

19) Assessment of S/W quality is a/an ----- process.

- a. objective
- b. subjective
- c. a and b
- d. neither a nor b

- 1) ☐ a
- 2) ☐ b
- 3) ☒ c
- 4) ☐ d

20) A denial-of-service is a direct threat affecting system -----.

- a. availability
- b. integrity
- c. confidentiality
- d. correctness

- 1) ☒ a
- 2) ☐ b
- 3) ☐ c
- 4) ☐ d

21) Security ----- is a protective measure that reduces a system's vulnerability.

- a. asset
- b. exposure
- c. control
- d. vulnerability

- 1) ☐ a
- 2) ☐ b
- 3) ☒ c
- 4) ☐ d

22) Individual security risk assessment can be applied to ----- systems.

- a. existing
- b. new
- c. a and b
- d. neither a nor b

- 1) ☐ a



- 2) ☒ b
- 3) ☐ c
- 4) ☐ d
- 23) changes so security requirements are more easier during system -----.
- a. requirement engineering
 - b. design
 - c. implementation
 - d. evolution
- 1) ☐ a
- 2) ☐ b
- 3) ☐ c
- 4) ☒ d
- 24) Multifactor authentication is related to ----- guideline.
- a. use defense in depth
 - b. fail security
 - c. log user actions
 - d. specify the format of system inputs
- 1) ☒ a
- 2) ☐ b
- 3) ☐ c
- 4) ☐ d
- 25) The security principle “need to know” is related to-----.
- a. use defense in depth
 - b. fail security
 - c. log user actions
 - d. compartmentalize your assets
- 1) ☐ a
- 2) ☐ b
- 3) ☐ c
- 4) ☒ d
- 26) S/W testing checks information about non-functional requirements.
- 1) ☒ true.
- 2) ☐ false.
- 27) Verification testing deals with customer satisfaction. |
- 1) ☐ true.
- 2) ☒ false.
- 28) S/W V& V are performed during S/W development process.
- 1) ☒ true.
- 2) ☐ false.



29) In static V & V testing, the S/W is executed.

- 1) - true.
- 2) ☒ false.

30) An inherited class needs to be a tested.

- 1) ☒ true.
- 2) - false.

31) Business changes is a motivation to generate new requirement for evolving any S/W.

- 1) ☒ true.
- 2) - false.

32) Coping with platform changes is a goal for S/W evolution.

- 1) ☒ true.
- 2) - false.

33) Coping with new features introduced by their competitors is a goal for S/W evolution.

- 1) - true.
- 2) ☒ false.

34) Repairing system faults is the most expensive maintenance effort.

- 1) - true.
- 2) ☒ false.

35) System reliability includes correctness, precision and timeliness.

- 1) ☒ true.
- 2) - false.

36) System functionality is more important than system dependability.

- 1) - true.
- 2) ☒ false.

37) In systems for which safety is a critical requirement, redundant servers are normally used.

- 1) - true.
- 2) ☒ false.

38) Real-time embedded systems can be thought of as active systems.

- 1) ☒ true.
- 2) - false.

39) The Get operation (function) is called by the producer process in a real-time system.

- 1) - true.
- 2) ☒ false.

40)



Quality standards development is the concern of the project level.

- 1) - true.
2) ☒ false.
- 41) QA team should work independently from S/W development team.
- 1) ☒ true.
2) - false.
- 42) S/W Quality standards embody intangible aspects.
- 1) - true.
2) ☒ false.
- 43) ISO standards can't be used for S/W quality management.
- 1) ☒ true.
2) - false.
- 44) Some generic S/W companies collect data on their products failure and defects remotely.
- 1) ☒ true.
2) - false.
- 45) Operational security deals with the security of individual application systems or related groups of systems.
- 1) - true.
2) ☒ false.
- 46) S/W evolution is a sub-activity of system security management.
- 1) ☒ true.
2) - false.
- 47) Security risk management is a technical-based issue rather than a business-based.
- 1) - true.
2) ☒ false.
- 48) Changes to security requirements specification is easier issue during.
- 1) - true.
2) ☒ false.
- 49) The relationship between system security and its usability is inverse proportional.
- 1) ☒ true.
2) - false.
- 50) While security-based systems are programmed using object-oriented languages, performance-based systems are programmed using function-oriented languages.
- 1) ☒ true.
2) - false.