



قائمة الاسئلة

امتحان نهاية الفصل الدراسي الأول - للعام الجامعي 1446 هـ - الموافق -2025/2024 مكلية الحاسوب وتكنولوجيا المعلومات :: هندسة البرمجيات
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- 1) A software is
 - 1) - A computer system
 - 2) - A computer program
 - 3) - A computer application
 - 4) + A computer program with associated documantion
- 2) Software engineering is concerned with
 - 1) - Creating a good requirements
 - 2) - Creating a good specifications
 - 3) + Creating a good software
 - 4) - Creating a good methodology
- 3) System engineering is concerned with
 - 1) + All aspects of computer-based systems development
 - 2) - All aspects of hardware-based systems development
 - 3) - All aspects of software-based systems development
 - 4) - All aspects of good software-based systems development
- 4) Computer science
 - 1) - Focuses on creating a new technologies
 - 2) - Focuses on software production
 - 3) - Focuses on sytem production
 - 4) + Focuses on theory and fundamentals
- 5) Which of the following is not a key challenge facing software engineering
 - 1) - Coping with increasing diversity
 - 2) + Creating a good computer-based system
 - 3) - Developing trustworthy software
 - 4) - Demands for reduced delivery times
- 6) There are two kinds of software product
 - 1) + Generic products
 - 2) - Open products
 - 3) - Closed product
 - 4) + Customized product
- 7) Which of the following is not an attribute of a good software
 - 1) - Acceptability
 - 2) - Maintainability
 - 3) - Efficiency
 - 4) + None of them
- 8) The number of application types
 - 1) - 10
 - 2) - 9
 - 3) - 8
 - 4) + 7
- 9) The number of fundamental activities for all software processes
 - 1) - 2
 - 2) + 4
 - 3) - 6
 - 4) - 12
- 10) Which of the following are fundamental activities for all software processes



- 1) - Specification
 - 2) - Development
 - 3) - Validation
 - 4) ☒ All of them
- 11) The software process is
- 1) - A abstract set of activities required to develop a software system
 - 2) - A set of requirments required to develop a software system
 - 3) ☒ A structured set of activities required to develop a software system
 - 4) - A non-structured set of activities required to develop a software system
- 12) The most popular software process models are
- 1) - The waterfall model
 - 2) - Incremental development
 - 3) - Integration and configuration
 - 4) ☒ All of the mentioned
- 13) The waterfall model is appropriate for the following types of system
- 1) ☒ Embedded systems
 - 2) - ERP systems
 - 3) - Operating systems
 - 4) ☒ Critical systems
- 14) The major advantages of waterfall model are
- 1) - Early delivery and deployment
 - 2) - Aetting a customer feedback is easier
 - 3) - The cost of implementing requirements changes is reduced
 - 4) ☒ None of the mentioned
- 15) The most appropriate model for developing a gas station control system is
- 1) - Agile model
 - 2) ☒ Waterfall model
 - 3) - Integration model
 - 4) - All of the mentioned
- 16) The integration and configuration model based on
- 1) - Manager skills
 - 2) - Reducing the resources
 - 3) ☒ Software reuse
 - 4) - All of the mentioned
- 17) The main activities in the requirements engineering process are
- 1) ☒ Requirements elicitation and analysis
 - 2) - Requirements documentaion
 - 3) ☒ Requirements validation
 - 4) ☒ Requirements specification
- 18) Which of following approaches may be used to reduce the costs of rework
- 1) - Change documentation
 - 2) ☒ Change anticipation
 - 3) ☒ Change tolerance
 - 4) - None of the mentioned
- 19) The number of principles of agile methods
- 1) ☒ 5
 - 2) - 4
 - 3) - 6
 - 4) - 3



- 20) The XP most important practices are
- 1) ☒ Refactoring
 - 2) ☒ User stories
 - 3) ☒ Pair programming
 - 4) ☐ None of the mentioned
- 21) Which of the following are examples of refactoring
- 1) ☒ Re-organization of a class hierarchy to remove duplicate code
 - 2) ☒ The replacement of inline code with calls to methods that have been included in a program library
 - 3) ☒ Tidying up and renaming attributes and methods to make them easier to understand
 - 4) ☐ None of the mentioned
- 22) The product backlog is
- 1) ☐ A single-item list of tasks which the Scrum team must tackle
 - 2) ☒ A list of 'to do' items which the Scrum team must tackle
 - 3) ☐ A list of 'to do' items which the Scrum team have done
 - 4) ☐ A tasks which the developer had done
- 23) The scrum is
- 1) ☒ A daily meeting of the Scrum team
 - 2) ☐ A group of agile developers
 - 3) ☐ A list of tasks that planned to be done
 - 4) ☐ A 2 - 4 weeks long period
- 24) The types of requirements by the description level are
- 1) ☐ Functional requirements
 - 2) ☒ System requirements
 - 3) ☒ User requirements
 - 4) ☐ Non-functional requirements
- 25) Functional requirements
- 1) ☐ Describe the cost of system services
 - 2) ☐ Describe the legacy system services
 - 3) ☒ Describe functionality or system services
 - 4) ☐ All of the mentioned
- 26) Non-functional requirements
- 1) ☐ Define functionality or system services
 - 2) ☒ Define system properties and constraints
 - 3) ☐ Define system complexity
 - 4) ☐ Define system life-cycle
- 27) Which of the following is not a non-functional requirement
- 1) ☐ Speed
 - 2) ☐ Size
 - 3) ☐ Ease of use
 - 4) ☒ None of the mentioned
- 28) One of the following is not a requirements engineering process
- 1) ☐ Requirements elicitation
 - 2) ☐ Requirements analysis
 - 3) ☐ Requirements validation
 - 4) ☒ Requirements changing
- 29) System modeling is
- 1) ☐ The process of developing detailed models of a system, with each model presenting a different view or perspective of that system



- 2) - The process of developing background of a system, with each layer presenting a different view or perspective of that system
 - 3) + The process of developing abstract models of a system, with each model presenting a different view or perspective of that system
 - 4) - The process of developing abstract models of a system, with each model presenting a same view or perspective of that system
- 30) Which of the following models belong to the structural models
- 1) - Sequence diagrams
 - 2) - Activity diagrams
 - 3) - Use case diagrams
 - 4) + Class diagrams
- 31) The output of the architectural design process is
- 1) - An architectural model that describes how many components the system does has
 - 2) + An architectural model that describes how the system is organized as a set of communicating components
 - 3) - An architectural pattern that describes the interaction between system components
 - 4) - All of the mentioned
- 32) Which of the following are a fundamental architectural views
- 1) + A logical view
 - 2) + A process view
 - 3) + A development view
 - 4) + A physical view
- 33) Patterns are a means of
- 1) - Developing, testing and reusing object
 - 2) - Planning, developing and reusing knowledge
 - 3) - Creating, designing and reusing components
 - 4) + representing, sharing and reusing knowledge
- 34) One of the following is not an architectural pattern
- 1) + Adapter pattern
 - 2) - Layered architecture
 - 3) - Repository architecture
 - 4) - Model-View-Controller pattern
- 35) A design pattern is
- 1) - An architectural pattern solving a problem and its solution
 - 2) - A way of reusing documentaion about a problem and its solution
 - 3) + A way of reusing abstract knowledge about a problem and its solution
 - 4) - A way of reusing system components
- 36) Pattern elements include
- 1) - Name
 - 2) - Problem description
 - 3) - Consequences
 - 4) + All of the mentioned
- 37) There are two kinds of design model
- 1) - Structural models describe the changing behaviour of the system at the run-time
 - 2) + Dynamic models describe the dynamic interactions between objects
 - 3) + Structural models describe the static structure of the system in terms of object classes and relationships
 - 4) - Dynamic models describe the mount of data being stored in database
- 38) The number of software reuse level



- 1) - 0
 - 2) ☒ 4
 - 3) - 5
 - 4) - 2
- 39) Choose two software testing goals
- 1) ☒ To demonstrate that the software meets its requirements
 - 2) - To demonstrate code readability
 - 3) ☒ To discover situations in which the behavior of the software is incorrect, undesirable
 - 4) - To discover situations in which the behavior of the software meets the manager needs
- 40) Unit testing is the first stage of
- 1) - Release testing
 - 2) ☒ Development testing
 - 3) - User testing
 - 4) - All of the mentioned
- 41) A software process model is a detailed representation of a process
- 1) - TRUE.
 - 2) ☒ FALSE.
- 42) The costs of software on a PC are often greater than the hardware cost
- 1) ☒ TRUE.
 - 2) - FALSE.
- 43) Software maintenance costs may be several times development costs
- 1) ☒ TRUE.
 - 2) - FALSE.
- 44) Plan-driven processes are processes where all of the process activities are planned interleaved
- 1) - TRUE.
 - 2) ☒ FALSE.
- 45) The incremental development models are more valued by the managers
- 1) - TRUE.
 - 2) ☒ FALSE.
- 46) The amount of analysis and documentation that has to be redone with the waterfall model is much less than is required with the incremental model
- 1) - TRUE.
 - 2) ☒ FALSE.
- 47) Software specification is the same as requirements engineering
- 1) ☒ TRUE.
 - 2) - FALSE.
- 48) The agile methods Focus on the design rather than the code
- 1) - TRUE.
 - 2) ☒ FALSE.
- 49) The extreme programming is one of agile methods
- 1) ☒ TRUE.
 - 2) - FALSE.
- 50) The product owner is the person who tests the software
- 1) - TRUE.
 - 2) ☒ FALSE.
- 51) Is the ScrumMaster responsible for ensuring that the Scrum process is followed and guides the team in the effective use of Scrum?
- 1) ☒ TRUE.
 - 2) - FALSE.



- 52) The user requirements mean the high-level abstract requirements
1) ☒ TRUE.
2) ☐ FALSE.
- 53) The system requirements mean the detailed description of what the system should do
1) ☒ TRUE.
2) ☐ FALSE.
- 54) Non-functional requirements may be more critical than functional requirements
1) ☒ TRUE.
2) ☐ FALSE.
- 55) Context models are used to show what lies outside the system boundaries
1) ☒ TRUE.
2) ☐ FALSE.
- 56) Architectural patterns are the same as design patterns
1) ☐ TRUE.
2) ☒ FALSE.
- 57) Verification answers the question: Are we building the right product?
1) ☐ TRUE.
2) ☒ FALSE.
- 58) Validation answers the question: Are we building the product right?
1) ☐ TRUE.
2) ☒ FALSE.
- 59) Unit test has three parts: a setup part, a call part, an assertion part
1) ☒ TRUE.
2) ☐ FALSE.
- 60) There are three different types of user testing: alpha testing, beta testing, acceptance testing
1) ☒ TRUE.
2) ☐ FALSE.