

- 1) Which of the following statements is true about state diagrams?
 - a) A state diagram describes all the states an object can have and the transitions of states as a result of events.
 - b) State diagram describes the behavior of multiple objects in the same Use Case.
 - c) State diagram describes the types of objects in the system and the different types of relationships between them.
 - d) State diagram shows the various components in the system and their dependencies.
- 2) ____ is a systems development technique that tests system concepts and provides an opportunity to examine input, output, and user interfaces before final decisions are made.
 - a) Scrum
 - b) Prototyping
 - c) Modeling
 - d) Rapid application development
- 3) Determining the ____ means defining the specific boundaries, or extent, of a project.
 - a) project index
 - b) project matrix
 - c) project scope
 - d) project table
- 4) Iterative and Incremental development means that:
 - a) the team is using a prototyping methodology
 - b) the system will be developed through versions
 - c) the system will be developed in phases
 - d) the system will undergo continuous testing and refinement
- 5) Which of the following is a form of Incremental model?
 - a) Spiral model
 - b) RAD model
 - c) Agile model
 - d) V-shaped model
- 6) In a systems development life cycle (SDLC) model, the purpose of the ____ is to build a logical model of the new system.
 - a) systems analysis phase
 - b) systems implementation phase
 - c) systems design phase
 - d) systems support and security phase

- 7) Which view in UML shows how functionality will be designed within the system, through concepts of static structure as well as dynamic behavior of the system?
- a) Usecase view
 - b) Logical view
 - c) Component view
 - d) Deployment view
- 8) To represent the physical relationships between software and hardware components in a system, which UML diagram would you use?
- a) Deployment Diagram
 - b) Activity Diagram
 - c) Class Diagram
 - d) State Diagram
- 9) means that the projected benefits of a proposed system outweigh the estimated costs.
- a) Economic feasibility
 - b) Schedule feasibility
 - c) Operational feasibility
 - d) Technical feasibility
- 10) A ____ is a requirement or condition that a system must satisfy or an outcome that a system must achieve.
- a) trigger
 - b) constraint
 - c) Query
 - d) Key
- 11) In class diagram, which relationship is defined as a structural relationship that conceptually means that the two components are linked to each other.
- a) association
 - b) dependency
 - c) aggregation
 - d) composition
- 12) In a systems development life cycle (SDLC) model, the purpose of the ____ is to create a physical model that will satisfy all documented requirements for the system.
- a) systems implementation phase
 - b) systems planning phase
 - c) systems analysis phase
 - d) systems design phase

- 13) In a sequence diagram, the symbol [some_text] represents:
- a) Message
 - b) Condition
 - c) Iteration
 - d) Delete object (deletion)
- 14) ___ is a planned meeting during which a systems analyst obtains information from another person.
- a) A survey
 - b) An interview
 - c) Sampling
 - d) Research
- 15) ___ allows objects with different internal structures to have a common external interface.
- a) information hiding
 - b) polymorphism
 - c) encapsulation
 - d) inheritance
- 16) Sequence diagrams are used in:
- a) logical view
 - b) process view
 - c) deployment view
 - d) implementation view.
- 17) The Beta version of the system is the result of which phase in the Unified Process?
- a) Inception phase
 - b) Elaboration phase
 - c) Construction phase
 - d) Transition phase
- 18) In which phase of the Unified Process do we install the system, test the deployed product, collect feedback from users, and maintain the system?
- a) Inception phase
 - b) Elaboration phase
 - c) Construction phase
 - d) Transition phase

- 19) To identify classes in ClassDiagram, the first step is to focus on carefully researching which of the following issues?
- a) Nouns in problem statements
 - b) Specialized knowledge within the scope of the problem
 - c) Usecases
 - d) All are correct
- 20) A ____ involves breaking a project down into a series of smaller tasks.
- a) work breakdown structure (WBS)
 - b) value breakdown structure (VBS)
 - c) risk breakdown structure (RBS)
 - d) concept breakdown structure (CBS)
- 21) Which section of the Usecase specification does the following description belong to? "The system has the ability to print to the screen in other languages. This function will be activated when the user selects Other Language on the menu."
- a) UC Description
 - b) Exit conditions
 - c) Special requirements
 - d) All are wrong
- 22) During the ____ of the systems development life cycle (SDLC), a new system is constructed.
- a) systems planning phase
 - b) systems support and security phase
 - c) systems design phase
 - d) systems implementation phase
- 23) Rapid application development (RAD) relies heavily on
- a) prototyping
 - b) management direction
 - c) agile methods
 - d) scrum
- 24) Which of the following statements is not true about associations in class diagrams?
- a) Associations represent relationships between instances of classes
 - b) Associations are the processes that a class will perform
 - c) Associations can be unidirectional
 - d) The connection can be in both directions

- 25) Which feature of OOP helps reduce system costs?
- a) Encapsulation (encapsulation)
 - b) Inheritance (inheritance)
 - c) Polymorphism (polymorphism)
 - d) Abstraction (abstractness)
- 26) The systems implementation phase of the systems development life cycle (SDLC) includes an assessment, called a ____, to determine whether the system operates properly and if costs and benefits are within expectation.
- a) systems estimation
 - b) systems verification
 - c) systems validation
 - d) systems evaluation
- 27) Waterfall model is not suitable for:
- a) Small projects
 - b) Complex projects
 - c) Accommodating changes
 - d) Maintenance Projects
- 28) In UML 2.0, how many types of structural modeling diagrams are there?
- a) 3
 - b) 4
 - c) 5
 - d) 6
- 29) _____ limitations result when a system that was designed for a specific hardware configuration becomes obsolete when new hardware is introduced.
- a) Accessibility
 - b) Relationship
 - c) Feasibility
 - d) Performance
- 30) Which UML tools serve the unit testing phase?
- a) Usecase and Usecase specification
 - b) Class Diagram and class specification
 - c) Activity and Sequence Diagram
 - d) Component Diagram and ERD

- 31) To evaluate____, a systems analyst needs information about projected future volume for all outputs, inputs, and processes.
- a) scalability
 - b) reliability
 - c) compatibility
 - d) applicability
- 32)____ is a mechanism that prevents the UML language from becoming too complex, while still allowing for necessary extensions and modifications.
- a) Stereotype (pattern)
 - b) Tagged value (attached value)
 - c) Constraint
 - d) Guillement (Extended Character)
- 33) Which of the following statements is correct regarding asynchronous message sending in a sequence diagram?
- a) Asynchronous messages can create a new thread, can create a new object, and can communicate with other running threads.
 - b) Asynchronous messages can create a new object but cannot create a new thread and cannot communicate with other running threads.
 - c) Asynchronous messages cannot create a new object but can create a new thread and can communicate with other running threads.
 - d) Asynchronous messages can create a new object, can create a new thread but cannot communicate with other running threads.
- 34) The purpose of the Interaction Diagram is:
- a) Provide a rigorous definition of the class's purpose, valid behavior and state.
 - b) Show how objects collaborate in a use case.
 - c) Represent groups of classes and dependencies between them
 - d) Provides several useful techniques for analysis, design, and coding.
- 35) Projects that provide the____are assigned the highest priority when setting priorities for systems requests.
- a) greatest benefit, at the lowest cost, in the shortest period of time
 - b) greatest benefit, at the highest cost, in the shortest period of time
 - c) least benefit, at the lowest cost, in the longest period of time
 - d) least benefit, at the highest cost, in the longest period of time

- 36) Which of the following is a typical example of a system requirement for the output category?
- a) Manufacturing employees must swipe their ID cards into data collection terminals to record labor costs.
 - b) The contact management system must generate a daily reminder list for all sales reps.
 - c) As the final step in year-end processing, the payroll system must update employee salaries, bonuses, and benefits and produce tax data required by the IRS.
 - d) All transactions must have audit trails.
- 37) _____ means that a project can be implemented in an acceptable time frame.
- a) Operational feasibility
 - b) Technical feasibility
 - c) Schedule feasibility
 - d) Economic feasibility
- 38) Adding more people to a project actually might increase the time necessary to complete the project because of a principle called _____
- a) Brooks' Law
 - b) Bernoulli's Law
 - c) Hooke's Law
 - d) Moody's Law
- 39) The analysis phase of the SDLC answers which questions
- a) who will create the system and when will it be used
 - b) who will the system be for, what the system will do, when will it be used, and where will it be used
 - c) why build the system, what the system will be, and how the system will work
 - d) why build the system, who will the system be for, when will it be used, and how the system will work
- 40) Systems development typically starts with a _____
- a) feasibility study, followed by a systems request, which includes a preliminary investigation
 - b) systems request, followed by a preliminary investigation, which includes a feasibility study
 - c) preliminary investigation, followed by a feasibility study, which includes a systems request
 - d) feasibility study, followed by a preliminary investigation, which includes a systems request

41) Which of the following is true about product backlog?

- a) It is created in Sprint Planning Meeting
- b) It contains a list of all desired features and is owned by the product owner.
- c) It is a subset of the product backlog owned by development team and commits to deliver it in a sprint.
- d) All of the above

42) Consider the following statement of requirements for the first iteration of a Library System.

Book and Journals: The library contains books and journals. It may have several copies of given book. Some of the books are for short term loans only.

All other books may be borrowed by any library member for three weeks.

Members of library can normally borrow up to six items at a time, but members of staff may borrow up to twelve items at one time. Only members of staff may borrow journals.

Borrowing : The system must keep track of when books and journals are borrowed and returned, enforcing the rules described above.

Which of the following classes are part of the Library System?

- a) book, journal, copy (of book), library member, member of staff
- b) item, copy (of book), library member, member of staff
- c) item, library member, member of staff
- d) system, rule, week, item, member

43) Which of the following is false about System Sequence Diagrams?

- a) SSD is a picture that shows for a particular scenario of a use case the events that external actors generate, their order and inter-system events.
- b) SSDs are part of the Use-Case Model.
- c) SSDs can also be used to illustrate collaborations between systems.
- d) System events and their associated system operations can be expressed in terms of the physical input medium or interface widget level.

44) What is true about UML stereotypes?

- a) UML Profiles can be stereotyped for backward compatibility
- b) The stereotype {frozen} indicates that the UML element cannot be changed
- c) A stereotype is used for extending the UML language
- d) A stereotyped class must be abstract

- 45) The project plan is the document that is used to ____.
- a) describe how the project team will go about developing the proposed system
 - b) outline the tasks to be addressed in developing the proposed system and develop a time estimate for each task.
 - c) outline the technical, economic, and organizational feasibility of the proposed system
 - d) summarize the business need and explain how the proposed system supports that need and creates value
- 46) The project sponsor is the ____.
- a) lead systems analyst on the project team
 - b) person or department that requested the system
 - c) any of the above may fill the role of the project sponsor
 - d) project team leader in charge of developing the system
- 47) Which of the following is not project management goal?
- a) Keeping overall costs within budget
 - b) Delivering the software to the customer at the agreed time
 - c) Maintaining a happy and well-functioning development team
 - d) Avoiding customer complaints
- 48) A ____ must be achieved to fulfill a company's mission.
- a) key performance factor
 - b) core competency
 - c) critical success factor
 - d) vision competency
- 49) In a(n) ____ model, the result of each phase is called a deliverable, which flows into the next phase.
- a) interactive
 - b) iterative
 - c) waterfall
 - d) spiral
- 50) Which is diagram giving an overview of a software system.
- a) Class diagram
 - b) Usecase diagram
 - c) Entity Relationship diagram
 - d) All of the above

51) Which of the following models is a combination of the waterfall model and the prototype model?

- a) V-shaped model
- b) Iterative model
- c) Incremental model
- d) Spiral model

52) A(n)___ is a characteristic or feature that must be included in an information system to satisfy business needs and be acceptable to users.

- a) system requirement
- b) property
- c) questionnaire
- d) object