

- 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.

System events and their associated system operations can be expressed in terms of the physical input medium or interface widget level.

c) SSDs can also be used to illustrate collaborations between systems. d)

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
- 53) What is the most important role of a systems analyst in business?
- A) Problem solving
 - B) Technical understanding of information systems
 - C) Knowing what data needs to be stored and used
 - D) Special programming skills

- 54) The most important attribute of a systems analyst is :
- A) Very good technical management skills
 - B) Excellent programming skills
 - C) Very good hardware designing skills
 - D) Very good writing skills
- 55) The role of a system analyst drawing up a requirements specification is similar..
- A) Architect designing a building
 - B) A structural engineer designing a building
 - C) A contractor constructing a building
 - D) The workers who construct a building
- 56) SDLC stands for
- A) System Development Life Cycle
 - B) Structure design life cycle
 - C) System design life cycle
 - D) Structure development life cycle
- 57) The Diagram that is most effect in describing the internal steps of a use case is:
- A) Workflow diagram
 - B) A package diagram
 - C) A use case diagram
 - D) A class diagram
- 58) The primary objective of system implementation is:
- A) To write programs, create databases and test with live data
 - B) To build a system prototype
 - C) To train user to operate the system
 - D) To implement designed system using computers
- 59) Which of the following is the primary objective of the analysis phase?
- A) Understand and document the user's needs and requirements
 - B) Analyze the capabilities and structure of the previous system
 - C) Prioritize the alternatives for a new system

- D) Determine the basic structure and approach for the new system
- 60) What requirement are characteristics of the system other than the business procedures it must support?
- A) Nonfunctional
- B) System
- C) Physical
- D) Implementation
- 61) The major goal of requirement determination phase of information system development is?
- A) Determine what information is needed by an organization
- B) Determine whether information is needed by an organization
- C) Determine how information needed by an organization can be provided
- 62) Information requirement of an organization can be determined by?
- A) Interviewing managers and users and arriving at the requirements based on consensus
- B) Finding out what similar organizations do
- C) Telling organization what they need based on your experience
- D) Sending a questionnaire to all employees of the organization
- 63) Requirement specification is carried out?
- A) After requirements are determined
- B) Before requirements are determined
- C) Simultaneously with requirements determination
- D) Independent of requirements determination
- 64) What does the acronym UML stand for?
- A) Unified Modeling Language
- B) User modification language
- C) User mode listings
- D) Unix modeling language

65) Events that occur when something happens inside the system that trigger the processing:

- A) State events
- B) External events
- C) Temporal events
- D) System events

66) Event occurs when system reaches a point (deadline) in time:

- A) Temporal events
- B) External events
- C) State events
- D) System events

67) Customer wants to place order is known as:

- A) External events
- B) Temporal events
- C) State events
- D) System events

68) Time to produce transaction summary reports is known as:

- A) Temporal events
- B) External events
- C) State events
- D) System events

69) Event “ Customer places an order” is corresponding to what use case needs to be defined:

- A) Create new order
- B) Create a new customer

70) Which of the following is to provide an overview of business processes and the entities involved in the process?

- A) Business use-case diagram
- B) System use-case diagram

C) Data flow diagram

D) E-R diagram

71) What modeling is focused on “What the system can do”?

A) System use-case diagram

B) Business use-case diagram

C) Data flow diagram

D) E-R diagram

72) One technique for finding “THINGS” that need to be in the new system is done by the analyst starts making of “THINGS”. He may do this from information and even without talking to users extensively. This technique is called the

A) Noun technique

B) Check list technique

C) Domain analysis technique

D) Brainstorming technique

73) Inheritance describes a condition between classes where _____

A) Some classes are always abstract

B) Subclasses inherit the names from superclasses

C) Classes are part of other classes

D) Classes share some attributes

74) In a fully developed use case description the exception condition represent what?

A) What conditions prevent the system from successfully completing the use case

B) What conditions might cause the system to crash

C) What conditions will confuse the actor

75) In a fully developed use case description the flow of activities is most similar to what?

A) An activity diagram

B) A class diagram

C) A state chart diagram

D) A system sequence diagram

76) In a sequence diagram a horizontal dashed line represents what?

A) A return message

B) An input message

C) A lifeline

D) An event

77) On an activity diagram the arrows represent what

A) Flow of activities

B) Transitions between states

C) Relationship navigation

D) None of the other selections

78) Which of the following diagrams are the primary models from which other models draw information

A) Use case diagram and the problem domain class diagram

B) System sequence diagram and activity diagram

C) State chart diagram and the problem domain class diagram

D) Use case description and the use case diagram

79) What does crud stand for?

A) Create , read, update, delete

B) Create, report, upload, destroy

C) Create, retract, unload, define

D) Create, refine, update, define

80) What is the primary purpose of the crud technique?

A) To identify areas of erroneous definition(CRUD)

B) To validate the set of defined use cases

C) To validate the set of classes

D) To validate the interests of the stakeholders

81) On a system sequence diagram, a named rectangular box represents what?

A) An object

B) A class

- C) A swim
- D) A note to explain something

82) Which of the following to describe "THE BOUNDARY BETWEEN THE AUTOMATED PORTION OF THE SYSTEM AND THE USERS OF THE SYSTEM"?

A) Automation boundary

83) As a student , I want to register for a class order to fulfill education requirements, is an example of A(N)_____?

A) User story

B) Use case

C) External event

D) Elementary business process

84) Which of the following to describe "A one sentence description of a use case"?

A) Brief use case description

B) Short use case description

C) Intermediate use case description

D) Use case description

85) User of it system mean:

A) Actors

B) Developers

C) Analysts

D) Managers

86) A diagram that depicts the use cases and actor for a system is called a:

A) Use case diagram

B) Deployment diagram