CS504 GRAND QUIZ
MCS FAMILY GROUP TEAM
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1) Modules with high cohesion and low coupling can be treated and analysed as
   i. White boxes
   ii. black boxes
   iii. grey boxes
   iv. none of these
2) While establishing the services for an object, the following fundamental questions should be asked:
   i) Why does the system need this object anyway?
   ii) What useful questions can it answer?
   iii) What useful action can it perform?
   iv) All of the given options.
3) ---------- is a role that each actor plays in the system under consideration.
   i) An act
   ii) A participant
   iii) A function
   iv) None of the given
4) Any Engineering approach must be founded on organizational commitment to ----------.
   i. Cost
   ii. Scheduling
   iii. Quality
   iv. Performance
5) Return values in synchronous massages are:
   i) Compulsory
   ii) May not used when response is obvious
   iii) Not used at all
   iv) Represented by solid lines
6) According to Caper Jhones analysis of project activities, coding only has ------- affect part in system development.
   i. 13-14%
   ii. 36-40%
   iii. 50-60%
   iv. 70-80%
7) Normally a system is more easy to modify if its modules have
   i. High coupling and high cohesion
   ii. High coupling and low cohesion
   iii. Low coupling and high cohesion
   iv. Low coupling and Low cohesion
8) In multi-threaded or multiprocessing applications where different execution threads may pass information to one another by sending ----------to each other.

i. Interrupt calls
ii. Synchronous messages
iii. Asynchronous messages
iv. System Calls

9) Which of the following is not among the four layers of the object-oriented pyramid?
i. The subsystem layers
ii. The class and object layer
iii. The abstract layer
iv. The message layers

10) System models include:
i. User business processes
ii. User activities for conducting the business process
iii. Processes that need to be automated
iv. All of the given options

11) In the architecture trade-off analysis method the architectural style should be described using the
i. Data flow view
ii. Module view
iii. Process view
iv. All of the given

12) ---------- is concerned with decomposing the system into interacting sub-systems.
a) System structuring
b) Control Modelling
c) Molecular Decomposition
d) None of the given

13) A use case represents:
i. A class, its attributes and operations
ii. An operation's interface and signature
iii. The role a user plays when interacting with the system
iv. The system's functionality for a particular purpose

14) External entity may be:
i. Source of input data only
ii. Source of input data and destination of results
iii. Destination of results
iv. Repository of data

15) The process of utilizing our knowledge of computer science in effective production of ----------.
i. Chemical Engineering
ii. Electrical Engineering
iii. Computer Engineering
iv. System Engineering

16) Coupling is a measure of ---------- of a component.
i. Independence
ii. Dependence
iii. Aggregation
iv. Composition

17) ---------- has become a standard notation for object-oriented system modelling:

i. UML
ii. C++
iii. OCL(Object Constraint Language)
iv. None of the given option

18) An arrow in data flow diagram represents:
i. Direction of flow of data
ii. Processing of data
iii. External agent
iv. Internal Agent

19) ---------- diagrams does not capture control flow information, it just shows the flow of data in a system.
i. Sequence
ii. Data Flow
iii. Activity
iv. Class

20) In ---------- the analyst determines the source of requirements and where do these requirements consume:
a) Data flow analysis
b) Source and sink analysis
c) Down parsing
d) Up parsing

21) Data cannot flow from one external entity to other external entity because:
a) It will get corrupted
b) It is not allowed in DFD
c) An external entity has no mechanism to read or write
d) Both are outside the context of the system

22) In the functional design, the structure of the system resolves around:
a) Objects
b) Properties
c) Functions
d) All of the given options

23) ---------- is one of the techniques to document domain knowledge
a) State transition diagram
b) Feasibility matrix
c) System matrix
d) None of the given options

24) In case of ---------- approach , decomposition of a problem revolves around data.
a) Object-Oriented
b) Action-Oriented
c) Event-Oriented
d) Process-Oriented

25) The ---------- relationship is a kind of a generalization specialization relationship:
a) Bit-Byte
b) Uses
c) Binary
d) Extends

26) Which statement is not true about system software?

a) Change request has direct impact on software
b) Passes through a constant process of evolution
c) Change requests have direct impact in the form of defects
d) None of the given

27) Strong cohesion implies that:
a) All parts of a component have a close logical relationship with each other
b) All parts of a component don't have a close relationship with each other
c) Component is dynamic in nature
d) Component is static in nature

28) The intent of Object-Oriented Analysis(OOA) is to define:
a) All classes
b) Relationships among classes
c) Behaviour of classes
d) All of the given options

29) Requirement engineering focuses on ---------- aspect of the software development process.
a) Both what and how
b) What
c) How
d) Why and how

30) ---------- relationship is concerned with classes, not with class instantiates.
a) Association
b) Inheritance
c) Aggregation
d) Composition

31) Which of the following statements are true in context of the object model deviation through the Coad methodology?
a) A place is also a contains
b) Every container needs to be a place
c) Same person may play different times in the system.
i. A only
ii. A and b
iii. A and c
iv. All of the given

32) The goal of --------- is to translate the customer's desire for a set of defined capabilities into a working product.
i. Electrical engineering
ii. Product engineering
iii. Hardware engineering
iv. Mechanical engineering

33) In case of a ------- message, the called routine that handles the message is completed before the caller resumes execution.
a) Synchronous
b) Asynchronous
c) Bidirectional
i. A only
ii. B only

iii. C only
iv. All of the given

34) In multiprocessing applications, different execution threads may pass information to one another by sending ------- to each other.
i. Interrupt calls
ii. Synchronous messages
iii. Asynchronous messages
iv. System calls

35) A car is made up of a body, three or four wheels, a steering mechanism, a breaking mechanism, and a power engine"
The above statement is example of:
i. Whole-part relationship
ii. Inheritance
iii. Specialization
iv. Generalization

36) To help separate an object's external behaviour from its implementation, the technique used is called -------
i. Generalization
ii. Association
iii. Composition
iv. Abstraction

37) Sequences of messages can be present in:
(a) Use case diagram
(b) Sequence diagram
(c) Collaboration diagram
1) a only
2) b only
3) c only
4) b and c

38) Which of the following strategies lead to good software design:
i. Separation of concerns
ii. Modularity
iii. Divide-and-conquer
iv. All of the given options

39) Data flow model:
i. Captures the flow of data in a system
ii. Helps in developing an understanding of system's functionality
iii. Describes data origination, transformations and consumption in a system
iv. All of the given options

40) ------- requirements are often called product features.
i. Functional
ii. Non-functional
iii. Developer
iv. User

41) In the functional design, the structure of the system revolves around.
i. Objects
ii. Properties

iii. Functions
iv. All of the given option

42) The first step in any OOA process model is to
i. Build an object-relationship model.
ii. Define collaborations between objects.
iii. Elicit customer requirements
iv. Select a representation language

43) The ------ relationship is kind of a generalization specialization relationship.
i. Bit-byte
ii. Uses
iii. Binary
iv. Extends

44) Regarding data flow model, which of the following statement(s) is true:
i. It captures the transformation of data between processes/functions of a system
ii. Processes on a data flow can operate in parallel
iii. Only those processes are represented which we need to automate
iv. All of the given option

45) ---------- is an extremely powerful technique for dealing with complexity.
i. Aggregation
ii. Abstraction
iii. Inheritance
iv. Association

46) In “point of sale system”. the term “payment” represents
i. Actor
ii. Participant
iii. Transaction
iv. Container

47) The architecture components for product engineering are
i. Data, hardware, software, people
ii. Data, documentation, hardware, software
iii. Data, hardware, software, procedures
iv. Documentation, hardware, people, procedures

48) An object model encompasses the principle(s) of
i. Abstraction
ii. Encapsulation
iii. Hierarchy or inheritance
iv. All of the given option

49) Prototyping is used when there is ---------- regarding requirements.
i. Uncertainty
ii. Confirmation
iii. Conflict
iv. Consensus

50) In ------- phase of software development, requirement analyst focuses on possible design of the proposed solution.
i. Maintenance
ii. Development
iii. Definition

iv. Vision

51) At which stage of software development loop, results are delivered?
   i. Problem definition
   ii. Solution integration
   iii. Technical development
   iv. Status quo

52) A class will be cohesive if:
   i. Class does not implement complex interfaces
   ii. Class does not have complex methods
   iii. If most of the methods do not use most of the data members most of the time
   iv. If most of the methods use most of the data members most of the time.

53) A DFD is normally levelled (adding more levels of abstraction) as
   i. It is a good idea in design
   ii. It is recommended by many experts
   iii. It is easy to do it
   iv. It is easier to read and understand a number of smaller DFDs than one large DFD

54) Identify the true statement(s)
   i. An attribute that may have a number of values should be replaced by a new class and an object connection
   ii. An attribute that varies over time, e.g. price of an item, should be replaced by an additional class with an affective data and value
   iii. Replace “yes/no” type attribute with “status” type attributes for flexibility
   iv. All of given option

55) ---------- Is a technique in which we construct a model of an entity based upon its essential characteristics and ignore the inessential details.
   i. Inheritance
   ii. Polymorphism
   iii. Aggregation
   iv. Abstraction

56) A structure is a manner of an organization which expresses a ------ strong organization within the problem domain.
   i. Semantically
   ii. Syntactically
   iii. Graphically
   iv. None of the given

57) An object model of a system captures the ------ structure of a system.
   i. Static
   ii. Dynamic
   iii. Iterative
   iv. Hierarchical

58) To determine the architectural style or combination of styles that best fits the proposed system, requirements engineering is used to uncover
   i. Algorithmic complexity
   ii. Characteristics and constraints
   iii. Control and data
   iv. Design patterns

59) Which statement is not according to the software engineering principles? Software engineering is a(n) _____
   i. Balancing act
   ii. Disciplined approach
   iii. Unsystematic approach
   iv. Quantifiable approach
60) In abbot's textual analysis technique, different part of speech is identified within the text of the specification and these part are modelled using different _____
   i. Event
   ii. Process
   iii. Operations
   iv. Components
61) Quantitative methods for assessing the quality of proposed architectural designs are readily available.
   i. True
   ii. False
62) In order to determine the role and responsibilities of the identified objects, we need to consider which of the following step(s):
   a) Who I am?
   b) What I know?
   c) Who I know?
   d) What I do?
   i. A only
   ii. A and b
   iii. B ,c and D
   iv. All of the given
63) In object oriented design _____ layer contains the details that enable each object to communicates with its collaborators.
   i. Subsystem
   ii. Responsibility
   iii. Message
   iv. Object
64) In sequence diagram, the boxes denote:
   i. Objects (or classes)
   ii. Messages, sent from one object to other
   iii. Life-time of objects
   iv. None of the given option
65) In "railway tickit reservation system" the roles such as enquiry. Reservation and ticketing and cancellation are to be performed by the user called:
   i. Passenger
   ii. System analyst
   iii. System developer
   iv. System designer
66) Class responsibilities are defined by _____
   i. Its attributes only
   ii. Its collaborators
   iii. Its operations only

iv. Both its attributes and operations

67) Requirement engineering mainly deals with the _____ of the system
   i. Vision phase
   ii. Definition phase
   iii. Development phase
   iv. Maintenance phase

68) In UML based object oriented model of a system, a composition relation between two objects is shown by a _____ sign on the whole side of a relation line.
   i. An unfilled diamond
   ii. A filled diamond
   iii. A half diamond
   iv. A dot

69) _____ analysis educates the analyst on business domain complexity and shows a way to deal with it.
   i. Domain
   ii. Use case
   iii. Object collaboration
   iv. None of the given options

70) In this case of _____ intra component linkages are stronger while inter component linkages are weak.
   i. High cohesion
   ii. Low coupling
   iii. Low cohesion
   iv. High coupling

71) An architectural style encompasses which of the following elements?
   i. Constraints
   ii. Set of components
   iii. Semantic models
   iv. All of the given

72) In software engineering paradigm, any engineering approach must be founded on organizational commitment to _____
   i. Cost
   ii. Scheduling
   iii. Quality
   iv. Performance

73) Identify the true statement:
   i. Normally object oriented design is more maintainable than functional oriented.
   ii. Software with functional oriented design does not fulfil non functional requirements.
   iii. Object oriented design can not implement “separation of concerns” strategy
   iv. Function oriented design does not lead to an efficient product

74) A process in data flow diagram (DFD) represents
   i. Flow of data
   ii. Transformation of data
   iii. Storage of data
   iv. An external agent

75) A maintainable design is a design , which supports
   i. Change

ii. Debugging
iii. Adding new features
iv. All of the given

76) Whole part structure is also called _____
i. Generalization
ii. Aggregation
iii. Specialization
iv. Association

77) _____ are kind of umbrella activities that are used to smoothly and successfully perform the construction activities.
i. Design activities
ii. Management activities
iii. Testing activities
iv. Maintenance activities

78) When you encounter both transform flow in the same DFD the flow is partitioned and the appropriate mapping technique is used on each part of the DFD.
i. True
ii. False

79) Software architecture must address ---------- requirements of a software system.
i. Functional
ii. Non-functional
iii. User Interface Requirements
iv. Both functional and non-functional.

80) To construct a system model the engineer should consider one of the following restraining factors.
i. Assumptions and constraints
ii. Budget and expenses
iii. Data objects and operations
iv. Schedule and milestones

81) A cohesive class is one which emphasizes on ---------- unit of functionality.
i. Single
ii. Multiple
iii. Static
iv. None

82) The best way to conduct a requirement validation review is to
i. Examine the system model for errors
ii. have the customer look over the requirements
iii. Send them to the design team and see if they have any concerns
iv. Use a checklist of the questions to examine each requirement

83) Defining the services of an object means:
i. What it does?
ii. What it knows?
iii. Who knows it?

84) Which one of the following is the external quality of a software product?
i. Correctness
ii. Concision
iii. Cohesion

iv. Low coupling

85) In Data Flow Diagram, the entity or system, outside the boundary of this system is called:
   i. Process
   ii. Data flow
   iii. External agent
   iv. Data store

86) GUI stands for:
   i. Genaric user Interface
   ii. Graphical user interface
   iii. Genaric user interaction
   iv. Graphical user interaction

87) Specialization means:
   i. Calling the same method with the object of child object
   ii. Hiding the data
   iii. Creating new subclasses for an existing class
   iv. None of the given options

88) In a use case diagram, an ellipse signifies a(n):
   i. Actor
   ii. Class
   iii. Use case
   iv. System boundary

89) Software development is a step-by-step process, and in --------- phase of software development Business objective of an organization get cleared
   i. Maintenance
   ii. Development
   iii. Definition
   iv. Vision

90) If you try to make software more user-friendly then the --------- may suffer.
   i. Reliability
   ii. Software
   iii. Efficiency
   iv. Cost

91) In object-oriented design, the structure of the system revolves around.
   i. Objects
   ii. Properties
   iii. Methods
   iv. All of the given option

92) In -------- relationship, a class shares the structure and behaviour defined in another class:
   i. Aggregation
   ii. Composition
   iii. Inheritance
   iv. Uses

93) In Object Oriented Design, combining the services offered by an object with the attributes they work on, results in:
   (a) Lower coupling and strong cohesion
   (b) Lower cohesion and strong coupling
   (c) Increased likelihood of reuse

(d) Decrease the modularity of the system

i. A only
ii. B and c only
iii. A and c only

94) A change becomes ---------- because of close presence of data and functions.

i. Accessible
ii. Global
iii. Private
iv. Localized

95) Software engineering is a ---------- approach.

i. Systematic
ii. Disciplined
iii. Scheduled
iv. All of the given options

96) An external entity that interacts with the system is called a(n):

i. Use case
ii. Actor
iii. Stakeholder
iv. Association

97) More powerful hardware resulted into the development of ----------powerful and --------- software.

i. Less, complex
ii. More , complex
iii. More, simple
iv. Less, simple

98) A context diagram is used:

i. As a first step in developing a detailed DFD of a system
ii. In systems analysis of very complex systems
iii. As an aid to system design
iv. As an aid to programmers

99) " System should maintain transaction log of every system"
The above statement is an example of:

i. Functional requirement
ii. Non-functional requirement
iii. Pseudo requirement
iv. None of these

100) The architectural model provides the software engineer with the view of the system as a whole:

i. True
ii. False

101) As per Peter Coad's methodology , which of the following may not be a perfect candidate for being an object?

i. Zone
ii. Recipient
iii. Garage
iv. Password

102) In the case of ---------- approach , data is decomposed according to functionality requirements.
   i. Object-oriented
   ii. Action-oriented
   iii. Event-oriented
   iv. Process-oriented

103) In UML based Object Oriented Model of a system, the diamond sign is used to depict ---------- relations between two objects/classes.
   i. Aggregation and Association
   ii. Inheritance and Association
   iii. Composition and Aggregation
   iv. Composition, Aggregation and Association

104) The system specification describes the:
   i. Function and behavior of a computer-based system
   ii. Implementation of each allocated system element
   iii. Algorithmic detail and data structures
   iv. Time required for system simulation

105) In object oriented approach, ---------- are the people and organizations that take part in the system under consideration:
   i. Actors
   ii. Places
   iii. Participants

106) Software Design discusses ---------- aspect of software development.
   i. What
   ii. How
   iii. Who
   iv. When

107) ---------- requirements cause frequent modifications in user interface.
   i. Functional
   ii. Non-functional
   iii. Unstable
   iv. User

108) By levelling a DFD (adding more levels of abstraction) we mean:
   i. Splitting it into different levels
   ii. Make its structure uniform
   iii. Expanding a process into one with more sub-processes giving more detail
   iv. Summarizing a DFD to specify only these essentials

109) A “register” in “Point of Sale system” is an example of:
   i. Actor
   ii. Participant
   iii. Tangible thing
   iv. Transaction

110) ---------- is a set of processes and tools to develop software.
   i. Software engineering
   ii. Information
   iii. Software
   iv. None of the given

111) The ---------- on which program operates is also considered as part of the software.

i. Data
ii. Information
iii. Program
iv. None of the given

112) ---------- diagram provides a time-based view and collaboration diagrams which provide an organization based view of the system's dynamics.

i. Data flow diagram
ii. Entity relationship diagram
iii. Class diagram
iv. Sequence diagram

113) Synchronous messages are "call events" and are denoted by ----------

i. Full arrow
ii. Half arrow
iii. <<create>>
iv. <<destroy>>

114) Which of the following are the components of system engineering software?

i. Process
ii. Methods
iii. Tools
iv. All of the given

115) Identifying system features include ----------

i. Log important information
ii. Conduct business
iii. Analyze business results
iv. All of the above

116) ---------- is yet another technique that is used to reduce customer dissatisfaction at the requirement stage.

i. Study of similar systems
ii. Site visits
iii. Prototyping
iv. All of the above

117) Data store notation in DFD represents:

i. Data input
ii. Data output
iii. Data input and data output
iv. None of the above

118) The process of defining attributes is called ----------

i. Who know me?
ii. What I know?
iii. Whom I know?
iv. All of the above

119) The output of the design process is a description of the:

i. Software architecture
ii. Software Code
iii. Software
iv. All of the above

120) Which of the following are the levels of software requirements?
   i. Business requirements
   ii. User requirements
   iii. Functional requirements
   iv. All of the above

121) Given below are some statements associated with data flow diagrams. Identify the correct statement among them.
   i. Data flow is made used of to model what systems do
   ii. Flows of data can take place from a process to a sink
   iii. Context diagrams shows the major system processes
   iv. All processes have to be labelled or decomposed

122) In which of the following diagram the actors and attributes are represented with system boundary?
   i. Data flow diagram
   ii. Entity relationship diagram
   iii. Class diagram
   iv. Use case diagram

123) _____ is real looking mock_up of what would be eventually delivered and might not do anything useful.
   i. Study of similar system
   ii. Site visits
   iii. Prototyping
   iv. All of the above

124) _____ is blueprint for software construction.
   i. Object oriented design
   ii. Sequence design
   iii. Software design
   iv. All of the above

125) _____ requirements lead to ill-spent time and rework.
   i. Unacceptable
   ii. Ambiguous
   iii. Dissatisfaction of customer
   iv. None of the above

126) Which type of diagram is used to depict the dynamic behaviour of a system.
   i. ERD diagram
   ii. DFD diagram
   iii. Class diagram
   iv. Collaborations diagram

127) What is the most crucial non-functional requirement of a system to control radiation dosages that are emitted as treatment for cancer?
   i. Security
   ii. Reliability
   iii. Easy usability
   iv. Accuracy

128) A better design has an objective achieve
   i. High cohesion
   ii. Low cohesion

iii. Low coupling
iv. High cohesion and low coupling

129) Which of the following are trhe components of software engineering framework is combine the three remaining components?
i. Process
ii. Method
iii. Tools
iv. All of the above

130) In sequence diagrams the time required by the receiver object to process the message is denoted by an _____
i. Activation box
ii. Message line
iii. Life line
iv. All of the above

131) How many types of OOD modes have _____.
i. One
ii. Two
iii. Three
iv. Four

132) Which notation is used to represent the process of the system in DFD model.
i. Process
ii. External agent
iii. Data flow
iv. Data store

133) Requirement engineering mainly deals with the _____ of the system
i. Process
ii. Maintenance
iii. Development phase
iv. Definition phase

134) Insufficient user involvement leads to _____ products.
i. Unacceptable
ii. Ambiguous
iii. Dissatisfaction of customer
iv. None of the above

135) Collaboration diagrams have basically two types of components: objects and _____
i. Messages
ii. Method
iii. Classes
iv. None of the above

136) In object-oriented analysis how many number of tasks must occurs _____.
i. 1
ii. 2
iii. 3
iv. None of the above

137) State transition diagram is helpful in determining _____.
i. Data store
ii. Process flow

iii. Business understanding
iv. None of the above

138) In sequence diagram events are organized in a _____ time life line.
i. Vertical
ii. Horizontal
iii. Both A and B
iv. All of the above

139) Asynchronous messages are “signals,” denoted by _____.
i. Full arrow
ii. Half arrow
iii. <<create>>
iv. <<destroy>>

140) When we write a program for computer and then we named it as _____ .
i. Data
ii. Information
iii. Software
iv. None of the given

141) Context level diagram present in which of the following document.
i. SRS-software requirement specification
ii. Design document
iii. Test phase
iv. All of the above

142) _____ is diagram in which objects are interact with each other and these are arranged in a sequence.
i. ERD diagrams
ii. Inheritance diagrams
iii. Class diagrams
iv. Sequence diagrams

143) Which of the following layers are include in object-oriented design?
i. The subsystem layers
ii. The class and object layer
iii. All of the above
iv. The message layers

144) Which notation is used to represent the boundary of the system in DFD model?
i. Process
ii. External agent
iii. Data flow
iv. Data store

145) Identifying whole-part structures (aggregations) means what are my _____.
i. Components
ii. Structures
iii. Class
iv. Object

146) An object or class may further be classified on the basis of _____ .
i. Behaviour driven attributes
ii. Data driven attributes
iii. Responsibility driven attributes

iv. All of the above

147) DFD notation contains
i. Process
ii. External agent
iii. Data flow
iv. All of the above

148) The doted lines in sequence diagram are called ____ .
i. Life line
ii. Message line
iii. Entities line
iv. All of the above

149) An object may create another object via a _____ message .
i. Full arrow
ii. half arrow
iii. <<create>>
iv. <<destroy>>

150) How many levels of software requirements are _____?
i. One
ii. Two
iii. Three
iv. Four

151) Which of the following diagram has iterative activities?
i. Data flow diagram
ii. Entity relationship diagram
iii. Class diagram
iv. Use case diagram

152) Which of the items listed below is not one of the software engineering layers?
i. Tools
ii. Manufacturing
iii. Process
iv. Methods

153) Coupling is a measure of _____ a module or component.
i. Independent
ii. Dependent
iii. Closeness
iv. All of the given

154) Software maintenance phase involves
i. Debugging
ii. Adding new features
iii. Making changes
iv. All of the given

155) The hardest single part of building a software system is deciding precisely _____ to build.
i. When
ii. What
iii. Why
iv. All of the given

156) Interaction diagrams depict the ____ behaviour of the system.

i. Static
ii. Active
iii. Dynamic
iv. None of the given

157) A _____ can be used to describe the dynamic behaviour of an object-oriented system.
i. ERD diagrams
ii. Inheritance diagrams
iii. Class diagrams
iv. Series diagrams

158) The Use case diagram shows that which ____ interact with each use case.
i. Use case
ii. Actor
iii. Component
iv. Relation

159) Transactions are the _____ that must be remembered through time.
i. Events
ii. Action
iii. Triggers
iv. Methods

160) A necessary supplement to transform or transaction mapping needed to create a complete architectural design is
i. Entity relationship diagrams
ii. The data dictionary
iii. Processing narratives for each module
iv. Best cases for each module