

Chapter 04: What is Object-Orientation?

Q1. What is an abstraction?

- A. A form of representation which includes only what are important from a particular viewpoint
- B. A form of representation which includes every possible detail about a concept whether it is important or not
- C. A design pattern that solves a common problem.
- D. It is an application framework

Answer: A

Q2. Which of the following are two main purposes that objects serve?

- A. Objects are used to model an understanding of the application domain
- B. Objects are used to understand data flow behavior in an application
- C. Objects are understood as parts of the resulting software and provide basis for implementation
- D. Objects are used as blueprints for class designer

Answer: A, C

Q3. Which of the following features all objects have?

- A. State
- B. Behavior
- C. Identity
- D. Security

Answer: A, B, C

Q5. Which of the following qualities every object must have?

- A. State
- B. Behavior
- C. Identity
- D. Position

Answer: A, B, C

Q4. Which of the following feature or features represent the condition that an object is in a particular moment?
Find out the appropriate word for the blank.

- A. State
- B. Behavior
- C. Identity
- D. All of the above

Answer: A

Q5. What is "**state**" of an object?

- A. The condition of an object at a given moment
- B. What the object can do
- C. How an object responds to events
- D. Uniqueness of an object

Answer: A

Q6. _____ represents the thing an object can do.

Find out the appropriate word for the blank.

- A. State
- B. Behavior
- C. Identity
- D. All of the above

Answer: B

Q7. _____ makes an object unique.

Find out the appropriate word for the blank.

- A. State
- B. Behavior
- C. Identity
- D. All of the above

Answer: C

Q8. Which of the following makes an object identifiable from a set similar or dissimilar set of object?

- A. State
- B. Behavior
- C. Identity
- D. All of the above

Answer: C

Q9. All objects are _____ of some class.

Which one best fits the blank.

- A. Children
- B. Sub-classes
- C. Parent
- D. Instances

Answer: D

Q10. _____ represents a particular instance of a class?

Which one best fits the blank.

- A. An object
- B. An interface
- C. A package
- D. A structure

Answer: A

Q11. Which of the following refers to a single object?

- A. An instance
- B. An interface
- C. A package
- D. A structure

Answer: A

Q12. "A descriptor for a collection of objects those are logically similar in terms of their behavior and the structure of their data"

What is the statement about?

- A. Class
- B. Instance
- C. Generalization
- D. Specialization

Answer: A

Q13. Which of the following features will be same for two instances of a class?

- A. Structure of data they hold
- B. Behaviors
- C. Value of attributes
- D. State

Answer: A, B [Page 67, States, values of properties may not the same for two objects]

Q15. Which of the following is / are true about an instance of a class?

- A. An instance originates from a class
- B. An instance holds information that remains unchanged during its lifetime
- C. An instance is structured according to its class
- D. An instance behaves according to its class

Answer: A, C, D

Q16. Which of the following two types of logical similarity ensure that two instances belong to the same class?

- A. Both the two objects share a common set of attributes (descriptive characteristics)
- B. Both the two object share the same identity
- C. Both the two object share a common set of behaviors (operations)
- D. Both the two objects use the same algorithm to perform a particular task

Answer: A, C

Q17. Which of the following is / are true about generalization?

- A. It is a taxonomic relationship between a more general element and a more specific element
- B. The more specific element is fully consistent with the general element and contains additional information
- C. The more specific element can now relate itself to other class

- D. The more specific element blocks all the features of inherited from the general element from transferring to the next level

Answer: A, B

Q18. Which of the following are true about generalization and specialization?

- A. It is a hierarchic classification
- B. As we move from the root towards the leaf a more specific element is found
- C. Every element is fully consistent with the first element in the hierarchy
- D. None of the above

Answer: A, B, C

Q19. Which of the following feature or features all sub-classes inherit from its super-class?

- A. Information structure (characteristics)
- B. Behavior
- C. Identity
- D. State

Answer: A, B

Q20. Which of the following are the rules of inheritance?

- A. A sub-class always inherits all the characteristics from its super-class
- B. A sub-class always inherits all states from its super-class
- C. The definition of the sub class includes at least one detail not derived from its super class
- D. A sub-class is always changes at least one behavior of its super-class

Answer: A, C

Q21. What does transitive operation refer to?

- A. A sub-class can not inherit from more than one class
- B. A sub-class always inherits all the characteristics from its super-class
- C. All features of a class is carried over to a sub-class at next adjacent level
- D. All of the above

Answer: C

Q22. What does "disjoint nature of generalization" refer to?

- A. A sub-class can not inherit from more than one class
- B. A sub-class always inherits all the characteristics from its super-class
- C. All features of a class is carried over to a sub-class at next adjacent level
- D. All of the above

Answer: A

Q23. Objects communicate each other by _____.

Which one best fits the blank.

- A. By sending messages
- B. By creating in-memory connection
- C. By implementing inheritance
- D. By using collaborator

Answer: A

Q24. Objects communicate by _____.

- A. sending message
- B. generating event
- C. sending signals
- D. encapsulating each other

Answer: A

Q25. An object encapsulates data and processes to act on this data. These processes are called _____.

Which one best fits the blank.

- A. Signature
- B. Protocol
- C. Operations
- D. State

Answer: C

Q26. Each operation has a specific _____.

Which one best fits the blank.

- A. Structure
- B. Argument
- C. Parameter
- D. Signature

Answer: D

Q27. _____ is the definition of an object's interface.

Which one best fits the blank.

- A. An Operation Signature
- B. An attribute
- C. A method
- D. A message

Answer: A

Q28. In order to invoke an operation, its _____ must be given.

Which one best fits the blank.

- A. Structure
- B. Argument
- C. Parameter
- D. Signature

Answer: D

Q29. Operation signatures are also called _____.

Which one best fits the blank.

- A. Message binding
- B. Message protocols
- C. Message calling
- D. Asynchronous operation

Answer: B

Q30. Which of the following is or are true about polymorphism?

- A. Polymorphism allows one message to be sent to objects of different classes and each object responds differently
- B. Polymorphism allows to create more than one object of a class in the same operation
- C. Polymorphism allows to restrict access to an object's operations
- D. All of the above

Answer: A

Q31. "The ability of different methods to implement the same operation in different ways those are appropriate to its class"

This statement is about _____.

- A. Inheritance
- B. Generalization
- C. Specialization
- D. Polymorphism

Answer: D

Q32. Which of the following is or are true?

- A. An object's state is determined by the values of its attributes
- B. An object maintains its state until an external stimulus change it
- C. An object's state affects the way it responds to messages
- D. An objects state can not be changed by its own operation

Answer: A, B, C

Q1. "A descriptor for a collection of objects those are logically similar in terms of their behavior and the structure of their data"

What is the statement about?

- A. Class
- B. Instance
- C. Generalization
- D. Specialization

Answer: A

Q2. Which of the following features will be same for two instances of a class?

- A. Structure of data they hold
- B. Behaviors
- C. Value of attributes
- D. State

Answer: A, B [Page 67, States, values of properties may not the same for two objects]

Q3. Which of the following is are true about an instance of a class?

- A. An instance originates from a class
- B. An instance holds information that remains unchanged during its lifetime
- C. A instance is structured according to its class
- D. An instance behaves according to its class

Answer: A, C, D

Q4. Which of the following is or are the rules of inheritance?

- A. A subclass always change the characteristics of its superclass
- B. A subclass always inherits all the characteristics of its superclass
- C. A subclass must redefine all the characteristics of its superclass
- D. The definition of a subclass always includes at least one detail not derived from any of its superclasses

Answer: B, D [See Page 72]

Q5. Which of the following qualities every object must have?

- A. State
- B. Behavior
- C. Identity
- D. Position

Answer: A, B, C

Q6. What is "**state**" of an object?

- A. The condition of an object at a given moment
- B. What the object can do
- C. How an object responds to events
- D. Uniqueness of an object

Answer: A

Q7. Objects communicate by _____.

- A. sending message
- B. generating event
- C. sending signals
- D. encapsulating each other

Answer: A

Q8. "The ability of different methods to implement the same operation in different ways those are appropriate to its class"

This statement is about _____.

- A. Inheritance
- B. Generalization
- C. Specialization
- D. Polymorphism

Answer: D