



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22
Programme – Bachelor of Computer Applications
Course Name – Object Oriented Technologies
Course Code - BCA402
(Semester IV)

Time allotted : 1 Hrs.25 Min.

Full Marks : 70

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 70=70

Choose the correct alternative from the following :

(1) Which among the following is true?

- | | |
|---|--|
| <p>a) The private members can't be accessed by public members of the class</p> <p>c) The private members can be accessed only by the private members of the class</p> | <p>b) The private members can be accessed by public members of the class</p> <p>d) The private members can't be accessed by the protected members of the class</p> |
|---|--|

(2) Private member functions

- | | |
|--|---|
| <p>a) Can't be called from enclosing class</p> <p>c) Can be accessed only if nested class is private</p> | <p>b) Can be accessed from enclosing class</p> <p>d) Can be accessed only if nested class is public</p> |
|--|---|

(3) Which of the following best defines a class?

- | | |
|--|--|
| <p>a) Parent of an object</p> <p>c) Blueprint of an object</p> | <p>b) Instance of an object</p> <p>d) Scope of an object</p> |
|--|--|

(4) Class is pass by _____

- | | |
|--|------------------------------------|
| <p>a) Value</p> <p>c) Value or Reference, depending on program</p> | <p>b) Reference</p> <p>d) Copy</p> |
|--|------------------------------------|

(5) Which among the following is false?

- | | |
|---|---|
| <p>a) Object must be created before using members of a class</p> <p>c) Objects can't be passed by reference</p> | <p>b) Object must be created before using members of a class</p> <p>d) Objects size depends on its class data members</p> |
|---|---|

- hin the class
- c) Member functions which are accessible in derived class
- class
- d) Member functions which can't be accessed inside the class
- (18) In java, which rule must be followed?
- a) Keyword private preceding list of private member's
- b) Keyword private with a colon before list of private member's
- c) Keyword private with arrow before each private member
- d) Keyword private preceding each private member
- (19) Which function among the following can't be accessed outside the class in java in the same package?
- a) public void show()
- b) void show()
- c) protected show()
- d) static void show()
- (20) Which was the first purely object oriented programming language developed?
- a) Java
- b) C++
- c) SmallTalk
- d) Kotlin
- (21) Which Feature of OOP illustrated the code reusability?
- a) Polymorphism
- b) Abstraction
- c) Encapsulation
- d) Inheritance
- (22) Size of a class is _____
- a) Sum of the size of all the variables declared inside the class
- b) Sum of the size of all the variables along with inherited variables in the class
- c) Size of the largest size of variable
- d) Classes doesn't have any size
- (23) Which definition best describes an object?
- a) Instance of a class
- b) Instance of itself
- c) Child of a class
- d) Overview of a class
- (24) Which is a valid keyword in java?
- a) interface
- b) string
- c) Float
- d) unsigned
- (25) What is the most restrictive access modifier that will allow members of one class to have access to members of another class in the same package?
- a) public
- b) abstract
- c) protected
- d) default access
- (26) Which is a valid declaration of a float?
- a) float f = 1;
- b) float f = 1.0;
- c) float f = "1";
- d) float f = 1.0d;
- (27) Which one is the method of the Object class?
- a) notify();
- b) synchronized();
- c) isInterrupted();
- d) interrupt();
- (28) What would be the behaviour if this() and super() used in a method?
- a) Runtime error
- b) Throws exception
- c) compile time error
- d) Runs successfully

- (29) What would be behaviour if the constructor has a return type?
- a) Compilation error
 - b) Runtime error
 - c) Compilation and runs successfully
 - d) Only String return type is allowed
- (30) Which are the valid declarations within an interface definition?
- a) public double method a();
 - b) public final double method a();
 - c) static void method a(double d1);
 - d) protected void method a(double d1);
- (31) Which of these method of Object class can clone an object?
- a) Objectcopy()
 - b) copy()
 - c) Object clone()
 - d) clone()
- (32) Which of these class relies upon its subclasses for complete implementation of its methods?
- a) Object class
 - b) abstract class
 - c) ArrayList class
 - d) None of the mentioned
- (33) Which of the following methods is defined in class Thread?
- a) start()
 - b) wait()
 - c) notify()
 - d) terminate()
- (34) A thread can acquire a lock by using which reserved keyword?
- a) Volatile
 - b) Synchronized
 - c) Locked
 - d) None of these
- (35) Which of these methods can be used to output a string in an applet?
- a) display()
 - b) print()
 - c) drawString()
 - d) PrintApplet()
- (36) The method called the first time an applet is loaded into the memory of a
- a) init()
 - b) start()
 - c) stop()
 - d) destroy()
- (37) Wrapping data and its related functionality into a single entity is known as
- a) Abstraction
 - b) Encapsulation
 - c) Polymorphism
 - d) Modularity
- (38) Which concept allows you to reuse the written code?
- a) Encapsulation
 - b) Abstraction
 - c) Inheritance
 - d) Polymorphism
- (39) Which of the following class allows to declare only one object of it?
- a) Abstract class
 - b) Virtual class
 - c) Singleton class
 - d) Friend class
- (40) What is the other name used for functions inside a class?
- a) Member variables
 - b) Member functions
 - c) Class functions
 - d) Class variables
- (41) How run-time polymorphisms are implemented in OOP?
- a) Using Inheritance
 - b) Using Virtual functions

- c) Using Templates
- (42) Pick the odd one out.
- a) array type
c) boolean type
- d) Using Inheritance and Virtual function
- b) character type
d) integer type
- (43) The value 132.54 can be represented using which data type?
- a) double
c) int
- b) void
d) bool
- (44) What are the references?
- a) An alternative name for already existing variables
c) A new type of variables
- b) A pointer to a variable
d) A new type of constant variable
- (45) The data elements in the structure are also known as
- a) objects
c) data
- b) members
d) objects & data
- (46) What is the use of dynamic cast operator?
- a) it converts virtual base class to derived class
c) it will convert the operator based on precedence
- b) it converts the virtual base object to derived objects
d) it converts the virtual base object to derived class
- (47) When we define the default values for a function?
- a) When a function is defined
c) When the scope of the function is over
- b) When a function is declared
d) When a function is called
- (48) By default, what a program does when it detects an exception?
- a) Continue running
c) Calls other functions of the program
- b) Results in the termination of the program
d) Removes the exception and tells the programmer about an exception
- (49) If a class is derived privately from a base class then _____
- a) no members of the base class is inherited
c) all the members are inherited by the class but are hidden and cannot be
- b) all members are accessible by the derived classes
d) no derivation of the class gives an error
- (50) What does STL stand for?
- a) Simple Template Library
c) Static Type Library
- b) Standard Template Library
d) Single Type-based Library
- (51) Which of the following relationship is known as inheritance relationship?
- a) 'has-a' relationship
c) association relationship
- b) 'is-a' relationship
d) none of the above
- (52) class derived: public base1, public base2 { } is an example of
- a) Polymorphic inheritance
c) Hierarchical inheritance
- b) Multilevel inheritance
d) Multiple inheritance
- (53) If a member needs to have unique value for all the objects of that same class, declare the

member as

- a) Global variable outside class
- b) Local variable inside constructor
- c) Static variable inside class
- d) Dynamic variable inside class

(54) Observe following program and answer class Example { public: int a,b,c; Example() {a=b=c=1;} //Constructor 1 Example(int a) {a = a; b = c = 1;} //Constructor 2 Example(int a,int b) {a = a; b = b; c = 1;} //Constructor 3 Example(int a,int b,int c) { a = a; b = b; c = c;} //Constructor 4 } In the above example of constructor overloading, the following statement will call which constructor Example obj = new Example (1,2,3);

- a) Constructor 2
- b) Constructor 4
- c) Constructor 1
- d) a. Type mismatch error

(55) Assume the following method is properly synchronized and called from a thread A on an object B: wait(2000); After calling this method, when will the thread A become a candidate to get another turn at the CPU?

- a) After thread A is notified, or after two seconds.
- b) Two seconds after thread A is notified.
- c) After the lock on B is released, or after two seconds.
- d) Two seconds after lock B is released.

(56) Which of these methods of Thread class is used to suspend a thread for a period of time?

- a) stop()
- b) sleep()
- c) terminate()
- d) suspend()

(57) Number of threads in below java program is public class ThreadExtended extends Thread { public void run() { System.out.println("\nThread is running now\n"); } public static void main(String[] args) { ThreadExtended threadE = new ThreadExtended(); threadE.start(); } }

- a) 0
- b) 1
- c) 2
- d) 3

(58) What will be the output of the program? class MyThread extends Thread { public static void main(String [] args) { MyThread t = new MyThread(); t.start(); System.out.print("one. "); t.start(); System.out.print("two. "); } public void run() { System.out.print("Thread "); } }

- a) Compilation fails
- b) An exception occurs at runtime.
- c) It prints "Thread one. Thread two."
- d) The output cannot be determined.

(59) The following block of code creates a Thread using a Runnable target: Runnable target = new MyRunnable(); Thread myThread = new Thread(target); Which of the following classes can be used to create the target, so that the preceding code compiles correctly?

- a) public class MyRunnable extends Object {public void run() {}}
- b) public class MyRunnable implements Runnable {void run() {}}
- c) public class MyRunnable implements Runnable {public void run() {}}
- d) public class MyRunnable extends Runnable {public void run() {}}

(60) Which of these are types of multitasking?

- a) Process based
- b) Thread based
- c) Process and Thread based
- d) None of the mentioned

(61) Which of these statements is incorrect?

- a) By multithreading CPU idle time is minimize d, and we can take maximum use of it
- b) By multitasking CPU idle time is minimized, and we can take maximum use of it
- c) Two thread in Java can have the same priority
- d) A thread can exist only in two states, running and blocked
- (62) What decides thread priority?
- a) Process
- b) Process scheduler
- c) Thread
- d) Thread scheduler
- (63) Which interface restricts duplicate elements?
- a) Set
- b) List
- c) Map
- d) All of these
- (64) A HashMap allows the existence of:
- a) Null value
- b) One null values
- c) None
- d) All
- (65) Which of these classes is not part of Java's collection framework?
- a) Maps
- b) Array
- c) Stack
- d) Queue
- (66) Which of this interface is not a part of Java's collection framework?
- a) List
- b) Set
- c) SortedMap
- d) SortedList
- (67) Which of these methods deletes all the elements from invoking collection?
- a) clear()
- b) reset()
- c) delete()
- d) refresh()
- (68) What is Collection in Java?
- a) A group of objects
- b) A group of classes
- c) A group of interfaces
- d) None of the mentioned
- (69) What will be the output of the following Java program? 1. import java.util.*; 2. class Array 3. { 4. public static void main(String args[]) 5. { 6. int array[] = new int [5]; 7. for (int i = 5; i > 0; i--) 8. array[5-i] = i; 9. Arrays.fill(array, 1, 4, 8); 10. for (int i = 0; i < 5 ; i++) 11. System.out.print(array[i]); 12. } 13. }
- a) 12885
- b) 12845
- c) 58881
- d) 54881
- (70) Which of these methods can be used to output a string in an applet?
- a) display()
- b) print()
- c) drawString()
- d) transient()