Set 1

1. How many types of access specifiers are provided in OOP (C++)?
a) 1
b) 2
c) 3
d) 4

2. Which among the following can be used together in a single class?
a) Only private
b) Private and Protected together
c) Private and Public together
d) All three together

3. Which among the following can restrict class members to get inherited?
a) Private
b) Protected
c) Public
d) All three

4. Which access specifier is used when no access specifier is used with a member of class (java)?
a) Private
b) Default
c) Protected
d) Public

5. Which specifier allows a programmer to make the private members which can be inherited?
a) Private
b) Default
c) Protected
d) Protected and default

6. Which among the following is false?
a) Private members can be accessed using friend functions
b) Member functions can be made private
c) Default members can't be inherited
d) Public members are accessible from other classes also

7. If a class has all the private members, which specifier will be used for its implicit constructor?
a) Private
b) Public
c) Protected
d) Default

8. If class A has add() function with protected access, and few other members in public . Then class B inherits class A privately. Will the user will not be able to call _____ from object of class B.
a) Any function of class A
b) The add() function of class A
c) Any member of class A
d) Private, protected and public members of class A

9. Which access specifier should be used in a class where the instances can't be created?
a) Private default constructor
b) All private constructors
c) Only default constructor to be public
d) Only default constructor to be protected

10. On which specifier's data, does the size of a class's object depend?
a) All the data members are added
b) Only private members are added
c) Only public members are added
d) Only default data members are added

11. If class B inherits class A privately. And class B has a friend function. Will the friend function be able to access the private member of class A?
a) Yes, because friend function can access all the members
b) Yes, because friend function is of class B
c) No, because friend function can only access private members of friend class
d) No, because friend function can access private member of class A also

12. If an abstract class has all the private members, then _____
a) No class will be able to implement members of abstract class
b) Only single inheritance class can implement its members
c) Only other enclosing classes will be able to implement those members
d) No class will be able to access those members but can implement.

13. Which access specifier should be used so that all the parent class members can be inherited and accessed from outside the class?
a) Private
b) Default or public
c) Protected or private
d) Public

14. Which access specifier is usually used for data members of a class?
a) Private
b) Default
c) Protected
d) Public

15. Which specifier should be used for member functions of a class?
a) Private
b) Default
c) Protected
d) Public

Set 2

1. Which is private member functions access scope?

a) Member functions which can only be used within the class

b) Member functions which can used outside the class

c) Member functions which are accessible in derived class

d) Member functions which can't be accessed inside the class

2. Which among the following is true?

a) The private members can't be accessed by public members of the class

b) The private members can be accessed by public members of the class

c) The private members can be accessed only by the private members of the class

d) The private members can't be accessed by the protected members of the class

3. Which member can never be accessed by inherited classes?

a) Private member function

b) Public member function

c) Protected member function

d) All can be accessed

4. Which syntax among the following shows that a member is private in a class?

a) private: functionName(parameters)

b) private(functionName(parameters))

c) private functionName(parameters)

d) private::functionName(parameters)

5. If private member functions are to be declared in C++ then _____

a) private:

b) private

c) private(private member list)

d) private :- <private members>

6. 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

7. How many private member functions are allowed in a class ?

a) Only 1

b) Only 7

c) Only 255

d) As many as required

8. How to access a private member function of a class?

a) Using object of class

b) Using object pointer

c) Using address of member function

d) Using class address

9. Private member functions _____

a) Can't be called from enclosing class

b) Can be accessed from enclosing class

c) Can be accessed only if nested class is private

d) Can be accessed only if nested class is public

10. Which function among the following can't be accessed outside the class in java in same package?

a) public void show()

b) void show()

c) protected show()

d) static void show()

11. If private members are to be called outside the class, which is a good alternative?

a) Call a public member function which calls private function

b) Call a private member function which calls private function

c) Call a protected member function which calls private function

d) Not possible

12. A private function of a derived class can be accessed by the parent class.

a) True

b) False

13. Which error will be produced if private members are accessed?

a) Can't access private message

b) Code unreachable

c) Core dumped

d) Bad code

14. Can main() function be made private?

a) Yes, always

b) Yes, if program doesn't contain any classes

c) No, because main function is user defined

d) No, never

15. If a function in java is declared private then it _____

a) Can't access the standard output

b) Can access the standard output

c) Can't access any output stream

d) Can access only the output streams

Set 3

1. What are public member functions?
a) Functions accessible outside the class but not in derived class
b) Functions accessible outside the class directly
c) Functions accessible everywhere using object of class
d) Functions that can't be accessed outside the class

2. Which among the following is true for public member functions?
a) Public member functions doesn't have a return type
b) Public member functions doesn't have any security
c) Public member functions are declared outside the class
d) Public member functions can be called using object of class

3. Which type of member functions get inherited in the same specifier in which the inheritance is done? (If private inheritance is used, those become private and if public used, those become public)
a) Private member functions
b) Protected member functions
c) Public member functions
d) All member functions

4. Which syntax among the following is correct for public member functions?
a) public::void functionName(parameters)
b) public void functionName(parameters)
c) public(void functionName(parameters))
d) public:-void functionName(Parameters)

5. Which syntax is applicable to declare public member functions in C++?
a) public:
b) public()
c) public void
d) public::

6. In java, which rule among the following is applicable?
a) Keyword public can't be preceded with all the public members
b) Keyword public must be preceded with all the public members
c) Keyword public must be post mentioned the function declaration
d) Keyword public is not mandatory

7. How many public members are allowed in a class?
a) Only 1
b) At most 7
c) Exactly 3
d) As many as required

8. Which is not a proper way to access public members of a class?
a) Using object pointer with arrow operator
b) Using object of class in main function
c) Using object of class with arrow operator
d) Using object anywhere in the program

9. Which call is correct for public members of a nested class?
a) Can be called from object of enclosing class
b) Can be called within enclosing class only with direct names
c) Direct names should be used for the nested classes
d) Only with help of nested class object pointer

10. Which public function call among the following is correct outside the class, if return type is void (C++)?

a) object.voidfunctionName(parameters);

b) object.functionName(parameters);

c) object.functionName void (parameters)

d) object.voidfunctionName();

11. If public members are to be restricted from getting inherited from the subclass of the class containing that function, which alternative is best?

a) Make the function private

b) Use private inheritance

c) Use public inheritance

d) Use protected inheritance

12. A derived class object can access the public members of the base class.

a) True

b) False

13. If a class have a public member function and is called directly in the main function then

_____

a) Undeclared function error will be produced

b) Out of memory error is given

c) Program gives warning only

d) Program shut down the computer

14. The function main() must always be public.

a) True

b) False

15. All the public member functions

_____

a) Can’t access the private members of a class

b) Can’t access the protected members of a class

c) Can access only public members of a class

d) Can access all the member of its class

Set 4

1. What is an exception?
a) Problem arising during compile time
b) Problem arising during runtime
c) Problem in syntax
d) Problem in IDE

2. Why do we need to handle exceptions?
a) To prevent abnormal termination of program
b) To encourage exception prone program
c) To avoid syntax errors
d) To save memory

3. An exception may arise when _____
a) Input is fixed
b) Input is some constant value of program
c) Input given is invalid
d) Input is valid

4. If a file that needs to be opened is not found in the target location then _____
a) Exception will be produced
b) Exceptions are not produced
c) Exception might get produced because of syntax
d) Exceptions are not produced because of logic

5. Which is the universal exception handler class?
a) Object
b) Math
c) Errors
d) Exceptions

6. What are two exception classes in hierarchy of java exceptions class?
a) Runtime exceptions only
b) Compile time exceptions only
c) Runtime exceptions and other exceptions
d) Other exceptions

7. Which are the two blocks that are used to check error and handle the error?
a) Try and catch
b) Trying and catching
c) Do and while
d) TryDo and Check

8. There can be a try block without catch block but vice versa is not possible.
a) True
b) False

9. How many catch blocks can a single try block can have?
a) Only 1
b) Only 2
c) Maximum 127
d) As many as required

10. Which among the following is not a method of Throwable class?
a) public String getMessage()
b) public Throwable getCause()
c) public Char toString()
d) public void printStackTrace()

11. To catch the exceptions _____
a) An object must be created to catch the exception
b) A variable should be created to catch the exception
c) An array should be created to catch all the exceptions
d) A string have to be created to store the exception

12. Multiple catch blocks _____

a) Are mandatory for each try block

b) Can be combined into a single catch block

c) Are not possible for a try block

d) Can never be associated with a single try block

13. Which symbol should be used to separate the type of exception handler classes in a single catch block?

a) ?

b) ,

c) –

d) |

14. Which class is used to handle the input and output exceptions?

a) InputOutput

b) InputOutputExceptions

c) IOExceptions

d) ExceptionsIO

15. Why do we use finally block?

a) To execute the block if exception occurred

b) To execute a code when exception is not occurred

c) To execute a code whenever required

d) To execute a code with each and every run of program

Set 5

1. Which feature of OOP indicates code reusability?

a) Encapsulation

b) Inheritance

c) Abstraction

d) Polymorphism

2. If a function can perform more than 1 type of tasks, where the function name remains same, which feature of OOP is used here?

a) Encapsulation

b) Inheritance

c) Polymorphism

d) Abstraction

3. If different properties and functions of a real world entity is grouped or embedded into a single element, what is it called in OOP language?

a) Inheritance

b) Polymorphism

c) Abstraction

d) Encapsulation

4. Which of the following is not feature of pure OOP?

a) Classes must be used

b) Inheritance

c) Data may/may not be declared using object

d) Functions Overloading

5. Which among the following doesn't come under OOP concept?

a) Platform independent

b) Data binding

c) Message passing

d) Data hiding

6. Which feature of OOP is indicated by the following code?

```
classstudent{int marks;};
classtopper:public student{int age; topper(int age){this.age=age;}};
```

a) Inheritance

b) Polymorphism

c) Inheritance and polymorphism

d) Encapsulation and Inheritance

7. Which feature may be violated if we don't use classes in a program?

a) Inheritance can't be implemented

b) Object must be used is violated

c) Encapsulation only is violated

d) Basically all the features of OOP gets violated

8. How many basic features of OOP are required for a programming language to be purely OOP?

a) 7

b) 6

c) 5

d) 4

9. The feature by which one object can interact with another object is:

a) Data transfer

b) Data Binding

c) Message Passing

d) Message reading

10. _____ underlines the feature of Polymorphism in a class.

a) Nested class

b) Enclosing class

c) Inline function

d) Virtual Function

11. Which feature in OOP is used to allocate additional function to a predefined operator in any language?

a) Operator Overloading

b) Function Overloading

c) Operator Overriding

d) Function Overriding

12. Which among doesn't illustrates polymorphism?

a) Function overloading

b) Function overriding

c) Operator overloading

d) Virtual function

13. Exception handling is feature of OOP. (True/False)

a) True

b) False

14. Which among the following, for a pure OOP language, is true?

a) The language should follow 3 or more features of OOP

b) The language should follow at least 1 feature of OOP

c) The language must follow only 3 features of OOP

d) The language must follow all the rules of OOP

15. OOP provides better security than POP:

a) Always true for any programming language

b) May not be true with respect to all programming languages

c) It depends on type of program

d) It's vice-versa is true

Set 6

1) The default value of a static integer variable of a class in Java is,

(a) 0

(b) 1

(c) Garbage value

(d) Null

(e) -1.

2) What will be printed as the output of the following program?

```
public class testincr
{
public static void main(String args[])
{
int i = 0;
i = i++ + i;
System.out.println("I = " +i);
}
}
```

(a) I = 0

(b) I = 1

(c) I = 2

(d) I = 3

(e) Compile-time Error.

3) Multiple inheritance means,

(a) one class inheriting from more super classes

(b) more classes inheriting from one super class

(c) more classes inheriting from more super classes

(d) None of the above

(e) (a) and (b) above.

4) Which statement is not true in java language?

(a) A public member of a class can be accessed in all the packages.

(b) A private member of a class cannot be accessed by the methods of the same class.

(c) A private member of a class cannot be accessed from its derived class.

(d) A protected member of a class can be accessed from its derived class.

(e) None of the above.

5) To prevent any method from overriding, we declare the method as,

(a) static

(b) const

(c) final

(d) abstract

(e) none of the above.

6) Which one of the following is not true?

(a) A class containing abstract methods is called an abstract class.

(b) Abstract methods should be implemented in the derived class.

(c) An abstract class cannot have non-abstract methods.

(d) A class must be qualified as 'abstract' class, if it contains one abstract method.

(e) None of the above.

7) The fields in an interface are implicitly specified as,

(a) static only

(b) protected

(c) private

(d) both static and final

(e) none of the above.

8) What is the output of the following program:

```
public class testmeth

                {
```

```
    static int i = 1;

    public static void main(String args[])

    {

        System.out.println(i+" , ");

        m(i);

        System.out.println(i);

    }

    public void m(int i)

    {

      i += 2;

    }

}
```

(a) 1 , 3
(b) 3 , 1
(c) 1 , 1
(d) 1 , 0
(e) none of the above.

9) Which of the following is not true?

(a) An interface can extend another interface.
(b) A class which is implementing an interface must implement all the methods of the interface.
(c) An interface can implement another interface.
(d) An interface is a solution for multiple inheritance in java.
(e) None of the above.

10) Which of the following is true?

(a) A finally block is executed before the catch block but after the try block.
(b) A finally block is executed, only after the catch block is executed.
(c) A finally block is executed whether an exception is thrown or not.
(d) A finally block is executed, only if an exception occurs.
(e) None of the above.

11) Among these expressions, which is(are) of type String?

(a) "0"
(b) "ab" + "cd"
(c) '0'
(d) Both (A) and (B) above
(e) (A), (B) and (C) above.

12) Consider the following code fragment

```
Rectangle r1 = new Rectangle();
r1.setColor(Color.blue);
Rectangle r2 = r1;
r2.setColor(Color.red);
```

After the above piece of code is executed, what are the colors of r1 and
r2 (in this order)?

(a) Color.blue
Color.red
(b) Color.blue
Color.blue
(c) Color.red
Color.red
(d) Color.red

Color.blue

(e) None of the above.

13) What is the type and value of the following expression? (Notice the integer division)

-4 + 1/2 + 2*-3 + 5.0

(a) int -5

(b) double -4.5

(c) int -4

(d) double -5.0

(e) None of the above.

14) What is printed by the following statement?

System.out.print("Hello,\nworld!");

(a) Hello, \nworld!

(b) Hello, world!

(c)

(d) "Hello, \nworld!"

(e) None of the above.

15) Consider the two methods (within the same class)

```
public static int foo(int a, String s)
{
s = "Yellow";
a=a+2;
return a;
}
public static void bar()
{
int a=3;
String s = "Blue";
a = foo(a,s);
System.out.println("a="+a+" s="+s);
}
public static void main(String args[])
{
bar();
}
```

What is printed on execution of these methods?

(a) a = 3 s = Blue

(b) a = 5 s = Yellow

(c) a = 3 s = Yellow

(d) a = 5 s = Blue

(e) none of the above.

Set 7

16) Which of the following variable declaration would NOT compile in a java program?

(a) int var;

(b) int VAR;

(c) int var1;

(d) int var_1;

(e) int 1_var;.

17) Consider the following class definition:

public class MyClass

{

private int value;

public void setValue(int i){ / code / }

// Other methods…

}

The method setValue assigns the value of i to the instance field value. What could you write for the implementation of setValue?

(a) value = i;

(b) this.value = i;

(c) value == i;

(d) Both (A) and (B) and above

(e) (A), (B) and (C) above.

18) Which of the following is TRUE?

(a) In java, an instance field declared public generates a compilation error.

(b) int is the name of a class available in the package java.lang

(c) Instance variable names may only contain letters and digits.

(d) A class has always a constructor (possibly automatically supplied by the java compiler).

(e) The more comments in a program, the faster the program runs.

19) A constructor

(a) Must have the same name as the class it is declared within.

(b) Is used to create objects.

(c) May be declared private

(d) Both (A) and (B) above

(e) (a), (b) and (c) above.

20) Consider,

public class MyClass

{

public MyClass(){/code/}

// more code…

}

To instantiate MyClass, you would write?

(a) MyClass mc = new MyClass();

(b) MyClass mc = MyClass();

(c) MyClass mc = MyClass;

(d) MyClass mc = new MyClass;

(e) The constructor of MyClass should be defined as, public void MyClass(){/code/}.

21) What is byte code **in the context of Java?**

(a) The type of code generated by a Java compiler.

(b) The type of code generated by a Java Virtual Machine.

(c) It is another name for a Java source file.

(d) It is the code written within the instance methods of a class.

(e) It is another name for comments written within a program.

22) What is garbage collection in the context of Java?

(a) The operating system periodically deletes all the java files available on the system.

(b) Any package imported in a program and not used

is automatically deleted.

(c) When all references to an object are gone, the memory used by the object is automatically reclaimed.

(d) The JVM checks the output of any Java program and deletes anything that doesn't make sense.

(e) Janitors working for Sun Micro Systems are required to throw away any Microsoft documentation found in the employees' offices.

23) You read the following statement in a Java program that compiles and executes.

submarine.dive(depth);

What can you say for sure?

(a) depth must be an int

(b) dive must be a method.

(c) dive must be the name of an instance field.

(d) submarine must be the name of a class

(e) submarine must be a method.

24) The java run time system automatically calls this method while garbage collection.

(a) finalizer()

(b) finalize()

(c) finally()

(d) finalized()

(e) none of the above.

25) The correct order of the declarations in a Java program is,

(a) Package declaration, import statement, class declaration

(b) Import statement, package declaration, class declaration

(c) Import statement, class declaration, package declaration

(d) Class declaration, import statement, package declaration

(e) Class declaration, package declaration, import statement.

26) An overloaded method consists of,

(a) The same method name with different types of parameters

(b) The same method name with different number of parameters

(c) The same method name and same number and type of parameters with different return type

(d) Both (a) and (b) above

(e) (a), (b) and (c) above.

27) A protected member can be accessed in,

(a) a subclass of the same package

(b) a non-subclass of the same package

(c) a non-subclass of different package

(d) a subclass of different package

(e) the same class.

Which is the false option?

28) What is the output of the following code:

```
class eq
{
public static void main(String args[])
{
String s1 = "Hello";
String s2 = new String(s1);
System.out.println(s1==s2);
}
}
```

(a) true

(b) false

(c) 0

(d) 1

(e) Hello.

29) All exception types are subclasses of the built-in class

(a) Exception

(b) RuntimeException

(c) Error

(d) Throwable

(e) None of the above.

30) When an overridden method is called from within a subclass, it will always refer to the version of that method defined by the

(a) Super class

(b) Subclass

(c) Compiler will choose randomly

(d) Interpreter will choose randomly

(e) None of the abvove.

Set 8

31) Mark the incorrect statement from the following:

(a) Java is a fully object oriented language with strong support for proper software engineering techniques

(b) In java it is not easy to write C-like so called procedural programs

(c) In java language objects have to be manipulated

(d) In java language error processing is built into the language

(e) Java is not a language for internet programming.

32) In java, objects are passed as

(a) Copy of that object

(b) Method called call by value

(c) Memory address

(d) Constructor

(e) Default constructor.

33) Which of the following is not a component of Java Integrated Development Environment (IDE)?

(a) Net Beans

(b) Borland's Jbuilder

(c) Symantec's Visual Café

(d) Microsoft Visual Fox Pro

(e) Microsoft Visual J++.

34) Identify, from among the following, the incorrect variable name(s).

(a) _theButton

(b) $reallyBigNumber

(c) 2ndName

(d) CurrentWeatherStateofplanet

(e) my2ndFont.

35) Use the following declaration and initialization to evaluate the Java expressions

int a = 2, b = 3, c = 4, d = 5;

float k = 4.3f;

System.out.println(– -b * a + c *d – -);

(a) 21

(b) 24

(c) 28

(d) 26

(e) 22.

36) Use the following declaration and initialization to evaluate the Java expressions

int a = 2, b = 3, c = 4, d = 5;

float k = 4.3f;

System.out.println(a++);

(a) 3

(b) 2

(c) 4

(d) 10

(e) Synatax error.

37) Use the following declaration and initialization to evaluate the Java expressions

int a = 2, b = 3, c = 4, d = 5;

float k = 4.3f;

System.out.println (-2U * (g – k) +c);

(a) 6

(b) 3

(c) 2

(d) 1

(e) Syntax error.

38) Use the following declaration and initialization to evaluate the Java expressions

int a = 2, b = 3, c = 4, d = 5;

float k = 4.3f;

System.out.println (c=c++);

(a) 2

(b) 4

(c) 5

(d) 8

(e) Syntax error.

39) Consider the following Java program :

```
class IfStatement{
public static void main(String args[])
{
int a=2, b=3;
if (a==3)
if (b==3)
System.out.println("==========");
else
System.out.println("##########");
System.out.println("&&&&&&&&&&");
}
}
```

Which of the following will the output be?

(a) ==========

(b) ##########
&&&&&&&&&

(c) &&&&&&&&&&

(d) ==========
##########
&&&&&&&&&&

(e) ##########.

40) An applet cannot be viewed using

(a) Netscape navigator

(b) Microsoft Internet Explorer

(c) Sun' Hot Java Browser

(d) Applet viewer tool which comes, with the Java Development Kit.

(e) Jbuilder.

Use the following Java program for answering question 41 and 42

```
class test{
void meth(int i, int j)
{
i *= 2;
i /= 2;
}
}
class argumentPassing
{
public static void main(String args[])
{
test ob = new test();
int a = 15, b = 20;
System.out.println("a and b before call :"+ a +" " + b);
ob.meth(a,b);
System.out.println("a and b after call : "+ a + " " +b);
}
```

41) What would the output be of the above Program – III before and after it is called?

(a) and b before call : 15 20 a and b after call : 30 10

(b) a and b before call : 5 2 a and b after call : 15 20

(c) a and b before call : 15 20 a and b after call : 15 20

(d) a and b before call : 30 10 a and b after call : 15 20

(e) a and b before call : 15 20 a and b after call :

42) What would the argument passing method be which is used by the above Program – III?

(a) Call by value

(b) Call by reference

(c) Call by java.lang class

(d) Call by byte code

(e) Call by compiler.

43) Consider the following program:

```
class prob1{
int puzzel(int n){
int result;
if (n==1)
return 1;
result = puzzel(n-1) * n;
return result;
}
}
class prob2{
public static void main(String args[])
{
prob1 f = new prob1();
System.out.println(" puzzel of 6 is = " + f.puzzel(6));
}
}
```

Which of the following will be the output of the above program?

(a) 6

(b) 120

(c) 30

(d) 720

(e) 12.

44) The blank space in the following sentence has to be correctly filled :

Members of a class specified as …….. are accessible only to methods of that class.

(a) Protected

(b) Final

(c) Public

(d) Private

(e) Static.

45) Java compiler javac translates Java source code into ……

(a) Assembler language

(b) Byte code

(c) Bit code

(d) Machine code

(e) Platform dependent code.

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46) …….. are used to document a program and improve its readability.
(a) System cells
(b) Keywords
(c) Comments
(d) Control structures
(e) Blocks.

47) In Java, a character constant's value is its integer value in the ……character set.
(a) EBCDIC
(b) Unicode
(c) ASCII
(d) Binary
(e) BCD.

48) In Java, a try block should immediately be followed by one or more …….. blocks.
(a) Throw
(b) Run
(c) Exit
(d) Catch
(e) Error.

49) An abstract data type typically comprises a …… and a set of …… respectively.
(a) Data representation, classes
(b) Database, operations
(c) Data representation, objects
(d) Control structure, operations
(e) Data representation, operations.

50) In object-oriented programming, the process by which one object acquires the properties of another object is called
(a) Encapsulation
(b) Polymorphism
(c) Overloading
(d) Inheritance
(e) Overriding.

51) Re-implementing an inherited method in a sub class to perform a different task from the parent class is called
(a) Binding
(b) Transferring
(c) Hiding
(d) Coupling
(e) extending.

52) In a class definition, the special method provided to be called to create an instance of that class is known as a/an
(a) Interpreter
(b) Destructor
(c) Constructor
(d) Object
(e) Compiler.

53) Consider the following statements about Java packages:
I. Packages don't provide a mechanism to partition all class names into more manageable chunks.
II. Packages provide a visibility control mechanism.
III. One of the important properties of a package is that all classes defined inside a package is accessible by code outside that package.
IV. The .class files for classes declared to be part of a package can be stored in multiple directories.
Which of them is correct?
(a) Only (I) above
(b) Only (II) above
(c) Only (III) above

(d) Only (IV) above
(e) All (I), (II), (III) and (IV) above are wrong.

54) Consider the following statements:
I. A class can be declared as both abstract and final.
II. A class declared as final can be extended by defining a sub-class.
III. Resolving calls to methods dynamically at run-time is called late binding.
IV. The class Object defined by Java need not be a super class of all other classes.
Identify the correct statement from the following:
(a) Both (I) and (II) above
(b) Both (III) and (IV) above
(c) Both (I) and (III) above
(d) Both (II) and (IV) above
(e) Only (III) above.

55) Identify, from among the following, the incorrect descriptions related to Java :
(a) Java Virtual Machine translates byte code into its own system's machine language and runs the resulting machine code
(b) The arithmetic operations *, /, %, + and – have the same level of precedence
(c) Comments do not cause any action to be performed during the program execution
(d) All variables must be given a type when they are declared
(e) Java variable names are case-sensitive.

56) Consider the following statement(s) about Java:
I. All white-space characters (blanks) are ignored by the compiler.
II. Java keywords can be used as variable names.
III. An identifier does not begin with a digit and does not contain any spaces.
IV. The execution of Java applications begins at method main.
Which of them is correct?
(a) Both (I) and (III) above
(b) Both (II) and (IV) above
(c) Both (I) and (II) above
(d) (III) and (IV) above
(e) All (I), (II), (III) and (IV) above.

57) Consider the following data types in Java :
I. Int II. Boolean III. Double IV. String V. Array.
Which of them are simple data types?
(a) Both (I) and (II) above
(b) (I), (II), (III) and (IV) above
(c) (I), (II) and (III) above
(d) (II) and (III) above
(e) All (I), (II), (III), (IV) and (V) above.

58) For what values respectively of the variables gender and age would the Java expression gender == 1 && age >= 65 become true?
(a) gender = 1, age = 60
(b) gender = 1, age = 50
(c) gender = 1, age = 65
(d) gender = 0, age = 70
(e) gender = 0, age = 55.

59) Consider the following Java program :

```
public class Compute {
public static void main (string args [ ])
{
int result, x ;
x = 1 ;
result = 0;
while (x < = 10) {
if (x%2 == 0) result + = x ;
+ + x ;
```

```
}
System.out.println(result) ;
}
}
```

Which of the following will be the output of the above program?

(a) 55

(b) 30

(c) 25

(d) 35

(e) 45.

60) Which of the following statements about Java Threads is correct?

(a) Java threads don't allow parts of a program to be executed in parallel

(b) Java is a single-threaded language

(c) Java's garbage collector runs as a high priority thread

(d) Ready, running and sleeping are three states that a thread can be in during its life cycle

(e) Every java application is not multithreaded.

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1) In a class, encapsulating an object of another class is called

A. Composition
B. Inheritance
C. Encapsulation
D. None

2) Features not available in C++ object oriented programming is

A. Virtual destructor
B. Virtual constructor
C. Virtual function
D. All

3) IS A relationship in C++ is

A. Inheritance
B. Encapsulation
C. Composition
D. None

4) If you want to write multiple functions in a class with same name, then what C++ feature will you use?

A. Function overriding
B. Encapsulation
C. Function overloading
D. None

5) Polymorphism types is/are

A. Compile time
B. Run time
C. Both
D. None

6) If I want to have common functions in a class and want to defer implementations of some other functions to derived classes, then we need to use

A. An interface
B. An abstract class
C. A friend class
D. A static class

7) Not using virtual destructor feature in a C++ object oriented programing can cause

A. Memory leak
B. An Issue in creating object of the class
C. An issue in calling base class destructor
D. Nothing

8) Which C++ oops feature is related to re-usability?

A. Encapsulation
B. Inheritance
C. Abstraction
D. None