* what is interface *

- Interface is just like a class, which contains only abstract method , to achieve interface. Java provides a keywords called implements

(i) Interface methods are by default public & abstract .

(ii) Interface variable are by default public+static +final.

(iii) Interface method must be override inside the implementing classes.

(iv) Interface nothing but deals b|w client & developer.

example:- Interface variable

```
Interface Customer Raj
{
    int amt = 5 ; // public+static+final
  void purchase ( );  // public + abstract
}

  class seller sanju  implements customer Raj
{
  override
public void purchase ( )
```

```
{
  system .out.println( " Raj needs "+ amt" + kg rise" )
 }
 }
  class check
 {
  public Static void main ( string [ ] args)
 {
 customer Raj c =  newSellersanju( );
c. purchase ( );
```

- multiple choice questions for interface :

1. which of these keywords is used to define interfaces in java ?

a.interface

b.Interface

c.intf

d. Intf

ans. (a)

2.which of these can be used to fully abstract a class from its implementation?

a.objects

b.Packages

c.Interfaces

d.none of the mentioned

ans. (c)

3.which of these access specifiers can be used for an interface ?

a.Public

b.Protected

c.Private

d.All of the mentioned

ans. (a)

4.which of these keywords is used by a class to use an interface defined previously?

a.import

b.Import

c.implements

d.Implements

ans. (c)

5.which of the following is the correct way of implementing an interface salary by class manager ?

a.class manager extends salary{}

b.class manager implements salary{}

c.class manager imports salary{}

d.none of the mentioned

ans. (b)

6.which of the following is an incorrect statement about packages ?

a.Intercfaces specifiers what class must do but not how it does

b.Interfaces are specified public if they are to be accessed by any code in the program?

c.All variables in interface are implecitly final and static

d.All variables are static and methods are public if interfaces is defines public

ans. (d)

7.what will be the output of the following java program?

```
1.  interface calculate
2.  {
3.      void cal(int item);
4.  }
5.  class display implements calculate

6.  {
7.      int x;
8.      public void cal(int item)
9.      {
10.         x = item * item;
11.     }
12. }
13.  class interfaces
14. {
15.     public static void main (stirng args [ ])
16.     {
```

```
17.     display arr = new display ;
18.     arr.x = 0;
19.     arr. cal(2);
20.     system.out.print(arr.x);
21.   }
22. }
```

a.0

b.2

c.4

d.none of the mentioned

ans. (c)

output :- $ javac interfaces.java

$ java interfaces

4

8. what will be the output of the following java program?

```
1.  interface calculate
2.  {
3.      void cal( int item);
4.  }
5.   class displayA implements calculate
6.    {
7.       int x;
8.       public void cal(int item)
9.       {
10.          x = item*item;
```

```
11.          }
12.       }
13.         class displayB implements calculate
14.        {
15.            int x;
16.           public void cal(int item)
17.          {
18.                 x = item / item;
19.          }
20.      }
21.       class interfaces
22.     {
23.           public static void main ( string args [ ] )
24.           {
25.                displayA arr1 = new displayA;
26.                displayB arr2 = new displayB;
27.                 arr1.x = 0;
28.                 arr2.x =0;
29.                 arr1.cal(2);
30.                 arr2.cal(2);
31.                 system.out.print(arr1.x +" " + arr2.x);
32.           }
33.     }
```

a.0 0

b. 2 2

c.4 1

d.1 4

ans. (c)

output:- $ javac interfaces. java

$ java interfaces

4 1

9.which of the folloeing is the correct way of implementing an interface A by class B?

a.class B extends A {}

b.class B implements A{}

c.class B imports A{}

d.none of the mentioned

ans.(b)

10. All methods must be implemented of an interface .

a.true

b.false

ans. (a)

11. what type of variables can be defined in an interface ?

a. public static

b.private final

c.public final

d.static final

ans.(d)

12. what does an interface contain?

a.method definition

b.method declaration

c.method declaration and definition

d.method name

ans.(b)

13.what type of the methods an interface contain by default ?

a.abstract

b.static

c.final

d.private

ans.(a)

14.what will happen if we provide concrete implementation of method in interface ?

a.The concrete class implementing that method need not provide implementation of that method

b.Runtime exception is thrown

c.compilation failure

d. method not found exception is thrown

ans.(c)

15.What happens when a constructor is defined for an interface ?

a.compilation failure

b.Runtime exception

c.The interface compiles successfully

d.The implmenting class will throw exception

ans.(a)

16.What happens when we access the same variable defined in two interfaces implementation by the same class?

a.Compilation failure

b.Runtime Exception

c. The JVM is not able to identify the correct variable

d.The inerface Name.variableName needs to be defined

ans.(d)

17.Can " abstract " keyword be used with constructor,

Initialization Block, Instance Intialization and Static Initialization Block.

a.True

b.False

ans. (b)

18.An interface in java is like a 100%_____.

a. abstract class

b.public class

c.inner class

d.anonymous class

ans. (a)

19.A Java Interface is not considered a class. State True or False.

a. TRUE
b. FALSE
ans.(a)

20.Choose the correct syntax below for defining an interface in java.

a.

```
interface NAME
 {
  // abstract methods
 }
```

b.

```
 abstract interface NAME
{
```

```
    // abstract methods
  }
```

c.

```
    public interface NAME
  {
    // abstract  methodss
   }
```

d. all of the above

ans.(d)

21.choose a correct statement about Java Interfaces?

a.Interface contains only abstract methods by default.

b.A Java class can implement multiple interfaces

c. An interface can extend or inherit another interface

d. all of the above

ans. (d)

22.A Java class inheritd contants and methods of an interface using ___keywords

a.INTERFACE

b.IMPLEMENTS

c.EXTENDS

d.All the above

ans. (b)

23.What is the output of the below Java program with an interface?

```
1.  interface Bus
2.  {
3.      void move();
4.  }
```

```
5.  class ElectricBus implements Bus
6.  {
7.      public void move()
8.     {
9.         system.out.println("Implemented move( )  method.");
10.   }
11.  }
12. public class InterfaceTest1
13. {
14.     public static void main ( String[ ] args )
15.     {
16.        new ElectricBus( ) . move( );
17.     }
18. }
```

a. No output

b.Implented move ( ) method.

c.compile eror

d. None of the above

ans. (b)

24. All Interfaces variables are ____by default in Java.

a. public

b.final

c.public and final

d. none

ans.(c)

25.All Interface methods in java are ____ by default.

a. public

b.abstract

c.public and abstract

d.none of the above

ans.(c)

26. A class implementing an interface can use ____ access modifier before the implemented methods.

a.private

b.protected

c.public

d. All the above

ans. (c)

27. A java class implementing an Interface can define a variable with the same name as that of the interface constant. state TRUE or FALSE.

a.TRUE
b.FALE

ans.(a)

28.A Java Interface can notn declare constructor. state TRUE or FALSE.

a. TRUE
b.FALSE

ans.(a)

29.Java 8 (Java 1.8) introduced the feature.

a. Default methods

b.static methods

c.Default and Static methods

d. None of the above

ans.(c)

30. Java Intefaces static methods have _____ compatibility with the existing project code.

a. Forward

b.Backward

c.Both Forward and Bcakward

d.none of the above

ans. (c)

31.Java Inteface DEFAULT methods have _____ compatibility with the existing project code.

a.Forward

b.Backward

c.Backward and Forward

d.none of the above

ans. (c)

32.The DEFAULT methods of an Interface are suitable mostly for __ type of projects.

a. Open source (Public repositories)

b.Closed source (private repositories)

ans.(a)

33.Is it posible to remove the keyword DEFAULT and make the method abstract again in an Interface, if the Interface belongs to a clossed -source projects ?

a. YES

b. NO

ans. (a)