Question **1**
Complete
Marked out of 1.00

Flag question

Question text

Here is a situation:

```
Birthday happy;
happy = new AdultBirthday( "Joe", 39);
happy.greeting();
```

Which greeting() method is run ?

Question 1Answer

a.
The one closest in the source code to the happy.greeting() statement.

b.
The one defined for Birthday because that is the type of the variable happy.

c.
The assignment statement where the AdultBirthday object is assigned to happy variable is an error.

d.
The one defined for AdultBirthday because that is the type of the object referred to by happy.

Question **2**
Complete
Marked out of 1.00

Flag question

Question text

Given the following:

```
class Foo {
   String doStuff(int x) { return "hello"; }
```

}

Which method would not be legal in a subclass of Foo?

Question 2Answer

a.
String doStuff(int x) { return "hello"; }

b.
protected String doStuff(int x) { return "Hello"; }

c.
int doStuff(int x) { return 42; }

d.
public String doStuff(int x) { return "Hello"; }

Question **3**
Complete
Marked out of 1.00

Flag question

Question text

Which of these packages contains abstract keyword?

Question 3Answer

a.
java.util

b.
java.system

c.
java.io

d.
java.lang

Question **4**
Complete
Marked out of 1.00

Flag question

Question text

Can an abstract class define both abstract methods and non-abstract methods?

Question 4Answer

a.
Yes-but the child classes do not inherit the abstract methods.

b.
Yes-the child classes inherit both.

c.
No-it must have all one or the other.

d.
No-it must have all abstract methods.

Question **5**
Complete
Marked out of 1.00

Flag question

Question text

What will be the result of attempting to compile and run the following program?

```
public class Polymorphism {
 public static void main(String[] args) {
  A ref1 = new C();
  B ref2 = (B) (ref1);
  System.out.println(ref2.f());
 }
}
```

```
class A {
 int f() {
  return 0;
 }
}

class B extends A {
 int f() {
  return 1;
 }
}

class C extends B {
 int f() {
  return 2;
 }
}
```

Question 5Answer

a.
The program will compile without error, but will throw a ClassCastException when run.

b.
The program will compile without error and print 1 when run.

c.
The program will compile without error and print 2 when run.

d.
The program will fail to compile.

Question **6**

Complete
Marked out of 1.00

Flag question

Question text

Which statement is true?

Question 6Answer

a.
Aggregation defines a is-a relationship between a superclass and its subclasses.

b.
It is possible for two classes to be the superclass of each other.

c.
It is possible for a subclass to define a method with the same name and parameters as a method defined by the superclass.

d.
A subclass must define all the methods from the superclass.

Question **7**
Complete
Marked out of 1.00

Flag question

Question text

Which statement is true?

Question 7Answer

a.
A class in which all the members are declared private, cannot be declared public.

b.
The subclass of a non-abstract class can be declared abstract.

c.
All the members of the superclass are inherited by the subclass.

d.
A final class can be abstract.

Question **8**
Complete
Marked out of 1.00

Flag question

Question text

Given the following code:

```
class MySuper {
 final int calculate(int i, int j) {
  return i * j;
 }
}

public class MySub extends MySuper {
 int calculate(int i, int j) {
  return 2 * i * j;
 }

 public static void main(String[] args) {
  MySuper sup = new MySub();
  int k = sup.calculate(2, 5);
  System.out.println(k);
 }
}
```

What is the result?

Question 8Answer

a.
An exception is thrown at runtime

b.
10

c.
Compilation error

d.
20

Question **9**
Complete
Marked out of 1.00

Flag question

Question text

Which statement is true?

Question 9Answer

a.
Methods with default access in a superclass cannot be overridden in subclasses.

b.
Public methods of a superclass cannot be overridden in subclasses.

c.
Protected methods of a superclass cannot be overridden in subclasses.

d.
Private methods of a superclass cannot be overridden in subclasses.

Question **10**
Complete
Marked out of 1.00

Flag question

Question text

Which one of the following statements is true?

Question 10Answer

a.
An abstract class can not extend a concrete class.

b.
An abstract class can declare non-abstract methods.

c.
An abstract class can be instantiated.

d.
An abstract class is implicitly final.

Question **11**
Complete
Marked out of 1.00

Flag question

Question text

What is the output of this program?

```
class A
{
    int i;
    public void display()
    {
        System.out.println(i);
    }
}
class B extends A
{
    int j;
    public void display()
    {
        System.out.println(j);
```

```
    }
  }
  class Dynamic_dispatch
 {
    public static void main(String args[])
    {
        B obj2 = new B();
        obj2.i = 1;
        obj2.j = 2;
        A r;
        r = obj2;
        r.display();
    }
 }
```

Question 11Answer

a.
4

b.
2

c.
1

d.
3

Question **12**
Complete
Marked out of 1.00

Flag question

Question text

Given the following classes and declarations, which statement is true?

```
// Classes
class Foo {
    private int i;
    private void f() { /* ... */ }
    public void g() { /* ... */ }
}
class Bar extends Foo {
    public int j;
    public void g() { /* ... */ }
}
// Declarations:
// ...
    Foo a = new Foo();
    Bar b = new Bar();
// ...
```

Question 12Answer

a.
The statement b.i = 3; is legal

b.
The statement b.f(); is legal.

c.
The statement a.j = 5; is legal.

d.
The statement a.g(); is legal.

Question **13**
Complete

Marked out of 1.00

Flag question

Question text

Given the following,

```
1. abstract class A {
2.     abstract short m1() ;
3.     short m2() { return (short) 420; }
4. }
5.
6. abstract class B extends A {
7.     // missing code?
8.     short m1() { return (short) 42; }
9. }
```

Which of the following statements is true?

Question 13Answer

a.
Class B must either make an abstract declaration of method m2() or implement method m2() to allow the code to compile.

b.
As long as line 8 exists, class A must declare method m1() in some way.

c.
It is legal, but not required, for class B to either make an abstract declaration of method m2() or implement method m2() for the code to compile.

d.
If class A was not abstract and method m1() on line 2 was implemented, the code would not compile.

Question **14**
Complete
Marked out of 1.00

Flag question

Question text

Given:

```
1 abstract class AbstractIt
2 {
3     abstract float getFloat();
4 }
5 public class Test1 extends AbstractIt
6 {
7      private float f1 = 1.0f;
8      private float getFloat(){ return f1;}
9
10    public static void main(String[] args)
11    {
12    }
13 }
```

Question 14Answer

a.
Compilation error at line no 8

b.
Compilation succeeds

c.
Compilation error at line no 5

d.
Runtime error at line 8

Question **15**
Complete

Marked out of 1.00

Flag question

Question text

What will be the result of attempting to compile and run the following program?

```
public class Polymorphism2 {
 public static void main(String[] args) {
  A ref1 = new C();
  B ref2 = (B) ref1;
  System.out.println(ref2.g());
 }
}

class A {
 private int f() {
  return 0;
 }

 public int g() {
  return 3;
 }
}

class B extends A {
 private int f() {
  return 1;
 }

 public int g() {
  return f();
 }
```

```
}


class C extends B {
 public int f() {
  return 2;
 }
}
```

Question 15Answer

a.
The program will compile without error and print 2 when run.

b.
The program will compile without error and print 0 when run.

c.
The program will compile without error and print 3 when run.

d.
The program will compile without error and print 1 when run.

Question **16**
Complete
Marked out of 1.00

Flag question

Question text

Which statement is true?

Question 16Answer

a.
A subclass can override any method present in a superclass.

b.

An overriding method can declare that it throws more exceptions than the method it is overriding.

c.
The parameter list of an overriding method must be a subset of the parameter list of the method that it is overriding.

d.
Private methods of a superclass cannot be overridden in subclasses.

Question **17**
Complete
Marked out of 1.00

Flag question

Question text

What is the process of defining a method in subclass having same name & type signature as a method in its superclass?

Question 17Answer

a.
None of the mentioned

b.
Method overloading

c.
Method hiding

d.
Method overriding

Question **18**
Complete
Marked out of 1.00

Flag question

Question text

Given:

```
1. public class TestOverload {
2.
3.     public void process() {
4.     }
5.
6.     public String process() {
7.         return "hello";
8.     }
9.
10.    public float process(int x) {
11.        return 67.5f;
12.    }
13.}
```

What is the result?

Question 18Answer

a.
Compilation fails because of an error in line 10.

b.
An exception is thrown at runtime.

c.
Compilation succeeds and no runtime errors with class TestOverload occur.

d.
Compilation fails because of an error in line 6.

Question **19**
Complete
Marked out of 1.00

Flag question

Question text

Which of these is supported by method overriding in Java?

Question 19Answer

a.
None of the mentioned

b.
Abstraction

c.
Polymorphism

d.
Encapsulation

Question **20**
Complete
Marked out of 1.00

Flag question

Question text

Which of these keywords can be used to prevent Method overriding?

Question 20Answer

a.
static

b.
final

c.
constant

d.
protected

Question **21**

Complete
Marked out of 1.00

Flag question

Question text

Given:

```
1. abstract class AbstractClass {
2.     void setup() { }
3.     abstract int execute();
4. }
5. class EC extends AbstractClass {
6.    int execute() {
7.          System.out.println("execute of EC invoked");
8.          return 0;
9.     }
10.}
11.public class TestEC {
12.    public static void main(String... args) {
13.         EC ec = new EC();
14.         ec.setup();
15.         ec.execute();
16.    }
17.}
```

What is the expected behaviour?

Question 21Answer

a.
Compilation error at line 2.

b.
Prints "execute of EC invoked".

c.
Runtime error occurs.

d.
Compilation error at line 14.

Question **22**
Complete
Marked out of 1.00

Flag question

Question text

What is an abstract class?

Question 22Answer

a.
An abstract class is another name for "base class."

b.
An abstract class is one without any child classes.

c.
An abstract class is any parent class with more than one child class.

d.
An abstract class is a class which cannot be instantiated.

Question **23**
Complete
Marked out of 1.00

Flag question

Question text

Which declaration prevents creating a subclass of a top level class?

Question 23Answer

a.
abstract public class Javacg{}

b.
final abstract class Javacg{}

c.
final public class Javacg{}

d.
private class Javacg{}

Question **24**
Complete
Marked out of 1.00

Flag question

Question text

What is the output of this program?

```
abstract class A
{
    int i;
    abstract void display();
}
class B extends A
{
    int j;
    void display()
    {
        System.out.println(j);
    }
}
class Abstract_demo
{
    public static void main(String args[])
    {
```

```
        B obj = new B();
        obj.j=2;
        obj.display();
    }
}
```

Question 24Answer

a.
Compilation error

b.
2

c.
0

d.
Runtime error occurs.

Question **25**
Complete
Marked out of 1.00

Flag question

Question text

Given:

```
abstract class Shape {
   public abstract void draw();
}
public class Circle extends Shape {
   public void draw() { }
}
```

Which one of the following statement is correct?

Question 25Answer

a.

```
Shape s = new Circle();
s.draw();
```

b.

```
Circle c = new Shape();
c.draw();
```

c.

```
Shape s = new Circle();
s->draw();
```

d.

```
Shape s = new Shape();
s.draw();
```

Question **26**

Complete

Marked out of 1.00

Flag question

Question text

Given the following:

```
1. class Over {
2.     int doStuff(int a, float B. {
3.         return 7;
4.     }
5. }
6.
```

```
7. class Over2 extends Over {
8.     // insert code here
9. }
```

Which method, if inserted at line 8, will not compile?

Question 26Answer

a.
```
private int doStuff(int x, float y) {return 4; }
```

b.
```
private int doStuff(int x, double y) { return 4; }
```

c.
```
protected int doStuff(int x, float y) {return 4; }
```

d.
```
public int doStuff(int x, float y) { return 4; }
```

Question **27**
Complete
Marked out of 1.00

Flag question

Question text

In the below class, is constructor overloaded or is method overloaded?

```
public class A
{
   public A()
   {
      //-----> (1)
   }

   void A()
```

```
    {
        //-----> (2)
    }
}
```

Question 27Answer

a.
Both constructor and method

b.
None of the mentioned

c.
Method

d.
Constructor

Question **28**
Complete
Marked out of 1.00

Flag question

Question text

Here is an abstract method defined in the parent:

public abstract int sumUp ( int[] arr );

Which of the following is required in a non-abstract child?

Question 28Answer

a.
public abstract int sumUp ( int[] arr ) { . . . }

b.
public int sumUp ( long[] arr ) { . . . }

c.
public double sumUp ( int[] arr ) { . . . }

d.
public int sumUp ( int[] arr ) { . . . }

Question **29**
Complete
Marked out of 1.00

Flag question

Question text

If a class inheriting an abstract class does not define all of its function then it will be known as?

Question 29Answer

a.
None of the mentioned

b.
A simple class

c.
Static class

d.
Abstract

Question **30**
Complete
Marked out of 1.00

Flag question

Question text

What would be the result of attempting to compile and executing the following code?

// Filename: MyClass.java

public class MyClass {

```
 public static void main(String[] args) {
  C c = new C();
  System.out.println(c.max(13, 29));
 }
}

class A {
 int max(int x, int y) {
  if (x > y)
   return x;
  else
   return y;
 }
}

class B extends A {
 int max(int x, int y) {
  return super.max(y, x) - 10;
 }
}

class C extends B {
 int max(int x, int y) {
  return super.max(x + 10, y + 10);
 }
}
```

Question 30Answer

a.

The code will fail to compile because the max() method in B passes the arguments in the call super.max(y, x) in the wrong order.

b.
code will compile without errors and will print 39 when run.

c.
The code will fail to compile because a call to a max() method is ambiguous.

d.
code will compile without errors and will print 29 when run.

Question **31**
Complete
Marked out of 1.00

Flag question

Question text

Given the following:

```
class A {
 public void baz() {
  System.out.println("A");
 }
}


public class B extends A {
 public static void main(String[] args) {
  A a = new B();
  a.baz();
 }


 public void baz() {
  System.out.println("B");
 }
```

}

What is the result?

Question 31Answer

a.
An exception is thrown at runtime.

b.
A

c.
Compilation fails.

d.
B

Question **32**
Complete
Marked out of 1.00

Flag question

Question text

Given the following:

```
1. class ParentClass {
2.     public int doStuff(int x) {
3.         return x * 2;
4.     }
5. }
6.
7. public class ChildClass extends ParentClass {
8.     public static void main(String [] args ) {
9.         ChildClass cc = new ChildClass();
10.        long x = cc.doStuff(7);
11.        System.out.println("x = " + x);
```

```
12.   }
13.
14.   public long doStuff(int x) {
15.       return x * 3;
16.    }
17. }
```

What is the result?

Question 32Answer

a.
Compilation fails at line 2.

b.
x = 21

c.
Compilation fails at line 14.

d.
x = 14

Question **33**
Complete
Marked out of 1.00

Flag question

Question text

A class Car and its subclass Yugo both have a method run() which was written by the programmer as part of the class definition. If junker refers to an object of type Yugo, what will the following code do?

```
junker.run();
```

Question 33Answer

a.

The run() method defined in Yugo will be called.

b.
The compiler will complain that run() has been defined twice.

c.
The run() method defined in Car will be called.

d.
Overloading will be used to pick which run() is called.

Question **34**
Complete
Marked out of 1.00

Flag question

Question text

Which one of the following statement is false?

Question 34Answer

a.
Aggregation defines a has-a relationship between a superclass and its subclasses.

b.
Inheritance defines a is-a relationship between a superclass and its subclasses.

c.
A subclass must override all the methods of the superclass.

d.
It is possible for a subclass to define a method with the same name and parameters as a method defined by the superclass.

Question **35**
Complete
Marked out of 1.00

Flag question

Question text

What is an abstract method?

Question 35Answer

a.
An abstract method is any method in an abstract class.

b.
An abstract method is a method in the child class that overrides a parent method.

c.
An abstract method is one without a body that is declared with the reserved