

**Core Java**  
**Unit Test – 1**

**Max Marks: 50**

**Name of the Participant:**\_\_\_\_\_

**Date:**\_\_\_\_\_

1 Which of the following commands compiles a java program.

A javac

B javap

C java

D none

2 What is the numerical range of a char? (Choose one.)

A. -128 to 127

B.  $-(2^{15})$  to  $(2^{15}) - 1$

C. 0 to 32767

D. Platform dependent

E. 0 to 65535

3 Which three are valid declarations of a float?

A. float f1 = -343;

B. float f2 = 3.14;

C. float f3 = 0x12345;

D. float f4 = 42e7;

E. float f5 = 2001.0D;

F. float f6 = 2.81F;

4 Which three are legal array declarations?

A. int [] myScores [];

B. char [] myChars;

C. int [6] myScores;

D. Dog myDogs [];

E. Dog myDogs [7];

5

What is the result of the following code

```
class Demo{  
    int x;  
    public static void main(String abc[])  
    {  
        System.out.println(x);  
    }  
}
```

- A 0
- B garbage value
- C Compile time error
- D Runtime error

6

Which of the following are valid access specifiers for a top level class.

- A private
- B public
- C no specifier
- D protected

7

Study the following code:

```
class A{  
    public A(){System.out.println("one"); }  
}  
class B extends A  
{  
    public B(){ System.out.println("two");}  
}
```

If in the implementation B ob=new B(); then the output is:

A     one  
      two

B     two  
      one

c     one

D     two

E     error

8

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?

- A. A
- B. B
- C. Compilation fails.
- D. An exception is thrown at runtime.

9

Given the following,  
1. class B extends A {  
2. int getID() {

```

3. return id;
4. }
5. }
6. class C {
7. public int name;
8. }
9. class A {
10. C c = new C();
11. public int id;
12. }

```

which two are true about instances of the classes listed above? (Choose two.)

- A. A is-a B
- B. C is-a A
- C. A has-a C
- D. B has-a A
- E. B has-a C

10

Given the following,

```

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

```

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

- A. String doStuff(int x) { return "hello"; }
- B. int doStuff(int x) { return 42; }
- C. public String doStuff(int x) { return "Hello"; }
- D. protected String doStuff(int x) { return "Hello"; }
- E. String doStuff(String s) { return "Hello"; }
- F. int doStuff(String s) { return 42; }

11

Given the following,

```

1. public class TestPoly {
2. public static void main(String [] args ){
3. Parent p = new Child();
4. }
5. }
6.
7. class Parent {
8. public Parent() {
9. super();
10. System.out.println("instantiate a parent");
11. }

```

```

12. }
13.
14. class Child extends Parent {
15. public Child() {
16. System.out.println("instantiate a child");
17. super();
18. }
19. }

```

what is the result?

- A. instantiate a child
- B. instantiate a parent
- C. instantiate a child  
instantiate a parent
- D. instantiate a parent  
instantiate a child
- E. Compilation fails.
- F. An exception is thrown at runtime.

12

Which of the following are not Wrapper classes.

- A Integer
- B Char
- C Boolean
- D String

13

Which are valid declarations within an interface?

- A. public static short stop = 23;
- B. protected short stop = 23;
- C. transient short stop = 23;
- D. final void madness(short stop);
- E. public Boolean madness(long bow);
- F. static char madness(double duty);

14

```
String a="abc";
```

```
    a.toUpperCase();
```

```
    //print a
```

What is the output;

A    ABC   B    abc   C   Abc

15

Given the following,

13. `String x = new String("xyz");`

14. `y = "abc";`

15. `x = x + y;`

how many String objects have been created?

A. 2

B. 3

C. 4

D. 5

16

Which of the following are not immutable objects.

A    String

B    Integer

C    Thread

D    Byte

17

In java how do you deallocate objects.

a) Using free operator

b) Using delete operator

c) Through Automatic garbage collection

d) Objects do not get deallocated

18

`String a="abc";`

`//print a+" "+a.charAt([a.length()])`

What is the output;

A    abc c

B    abc

C compilation error

D

RuntimeError

19

Given the following,

`String x = "xyz";`

`String y = "xyz";`

I    What will `x==y` return?

A    true   B   false

II What will x.equals(y) return  
A true B false

20

Which of the following methods are not defined in the Object Class.

A equals b hashCode c compareTo d finalize

21

Which of the following are not unchecked Exceptions

- 1 NullPointerException
- 2 StringIndexOutOfBoundsException
- 3 FileNotFoundException
- 4 IOException
- 5 ArithmeticException

22

```
class Demo123
{
    public static void main(String abc[])
    {
        try{
            int x=10/0;
        }
        System.out.println("test");
        catch(Exception e){ System.out.println("catch");}
        finally{ System.out.println("Finally");}
    }
}
```

What is the result of the above code:

- A prints test catch Finally
- B prints catch Finally
- C Compilation fails
- D RuntimeException

23) If the java program **Sample** is executed as java **Sample 3 abc 5** , What will be the output in the following cases(guess the output for every statement)

( 4 marks)

- a     System.out.println(args.length);
- b     System.out.println(args[1].length());
- c     System.out.println(args[1]);
- d     System.out.println(args[3]);

24     Answer the following or fill in the blank. (6 marks)

1) Which package defines String and StringBuffer classes?

Ans

2) Which method can be used to obtain the length of the String?

Ans :

3) How do you concatenate Strings?

Ans :

4) Which method can be used to compare state of two strings.

Ans :

5) \_\_\_\_\_ is the superclass for all the classes

6) \_\_\_\_\_ keyword is used to prevent overriding methods.

25     True Or False (4 marks)

- 1     An Overridden method can or need not have throws if original method throws Checked or unchecked exception.
- 2     An Overridden method can have throws any Checked Exception even if it is not declared in original method.



3 Custom Exception can be checked or unchecked.

4 IOException is unchecked Exception.

26 Study the following snippet code and answer the questions:

( 4 marks)

```
Class A{
    void m1(int x, float f){ } ---- 1
    void m1(int c){ } ---- 2
}

Class B extends A{
    int m1(int x,float f){ } ---- 3
    void m1(int x) -----4
}

}
```

- a) Which method in class B is not valid.
- b) What change will you make in the invalid method to make it valid.
- c) Which are the overloaded methods.
- d) Which are the overridden methods

27 Read the following code snippet and answer the questions ( 4 marks)

```
class Demo{
    int data=10;

    static void m(final Demo dobj){
        dobj.data=15; -----1
    }
}
```

```

public static void main(String abc[])
{
    Demo d=null;
    d=new Demo();    ----- 2
    m(d);
    System.out.println(d.data);
}
}

```

- 1 What is the output of the above program
- 2 What is the output of the above program if final keyword is removed.
- 3 Which of the following statements if introduced after 1 will cause errors.
  - A dobj=new Demo();
  - B dobj=null;
  - C Demo d=new Demo();
- 4 What happens when statement 2 is removed.

28 Study the following program and answer the questions given below.

6 marks

```

public class Point {
    private int x;
    private int y;

    Point() { }
    Point(int x,int y)
    {
        this.x=x;this.y=y;
    }

    public String toString()
    {
        return x+" "+y;
    }
    public Point m1(Point p2)
    {

```

```
Point temp=new Point();  
temp.x=x-p2.x;  
temp.y=y-p2.y;
```

---

```
}  
public static void main(String args[]) {  
  
    Point p1=new Point(56,75);  
    Point p2=new Point(34,56);  
    Point p3=p1.m1(p2);  
    System.out.println(p3); //statement 1  
  
}
```

1. What is the functionality of method m1()?
2. What is the statement in place of blank.
3. What happens if default constructor is removed.
4. Which method is executed at statement 1.
5. What happens if String args[] is changed to String[] abc
6. What happens if toString method is not defined.