

Language Basic's:

- 1) Please find the bellow code explain why I got the compile time error and suggest the correct code to do it?

```
class Base {
    protected int i;
}class Child extends Base{
    public int x;
    void init (int x) {
        this.x=x;
    }
}class Child1 extends Child{
    i=20;
}
```

- 2) `public class MyDemo5 {`
 `public static void main(String[] args) {`
 `for (int i = 0; ; i++) {`
 `if (i < 0) {`
 `System.out.println("Hi");`
 `System.exit (0);`
 `}`
 `}`
 `}`

What is the output of the program and explain the scenario.

- 3) What will be printed out if you attempt to compile and run the following code?

```
int i=1;
switch (i) {
case 0:
System.out.println("zero");
break;
case 1:
System.out.println("one");
case 2:
System.out.println("two");
default:
System.out.println("default");
}
```

- 4) What will be printed out if you attempt to compile and run the following code?

```
int i=9;
switch (i) {
default:
System.out.println("default");
case 0:
System.out.println("zero");
break;
case 1:
System.out.println("one");
case 2:
System.out.println("two");
}
```

5) What will be the output of the program?

```
public class Example {  
    public static void main (String [] args) {  
        Integer ten = new Integer (10);  
        Long nine = new Long (9);  
        System.out.println(ten + nine);  
        int i = 1;  
        System.out.println(i + ten);  
    }  
}
```

6) Choose true statements about Factory method in java?

- a. The return type of the factory method must be similar to name of the class where it belongs to.
- b. Every Factory method in java must be Static.
- c. Every Factory method in java must be followed by private keyword.
- d. Used to create objects without using new operator.

7) What will be the answer for the following code?

```
package basic;  
public class A {  
    static void test(Number number) {  
        System.out.println("Number:" + number);  
    }  
    static void test(Object object) {  
        System.out.println("Object:" + object);  
    }  
    public static void main(String[] args) {  
        int i = 10;  
        test(i);  
    }  
}
```

8) What will be the answer for the following code?

```
package basic;  
public class StringExample {  
    public static int[] myArrayElements(int a3[]) {  
        a3[1] = 7;  
        return a3;  
    }  
    public static void main(String[] args) {  
        int a1[] = { 3, 4, 5 };  
        int a2[] = myArrayElements(a1);  
        System.out.println(a1[0] + a1[1] + a1[2]);  
        System.out.println(a2[0] + a2[1] + a2[2]);  
    }  
}
```

9) Which one is the best practice to return employee's working for the department? Fill the return type.

```
public class MyDemo4 {  
    public [ return Type] getEmployeeList(final int deptNumber) {  
        return null;  
    }  
}
```

10) What will be the output of the program?

```
String s = new String("Bicycle");  
int iBegin = 1;  
char iEnd = 3;  
System.out.println(s.substring(iBegin, iEnd));
```

11) If you wanted to find out where the position of the letter v (i.e. return 2) in the **string s** containing "Java", which of the following could you use?

a) `mid(2,s);` b) `charAt(2);` c) `s.indexOf('v');` d) `indexOf(s,'v');`

12) What are all the different ways to get a connection from database by using JDBC?

13) Which of the following lines will compile without warning or error?

a) `float f=1.3;` b) `char c="a";` c) `byte b=257;` d) `boolean b=null;`
a) `int i=10;`

14) Please list the Object Class methods and explain when to override `equals ()` and `hashCode ()` methods?

15) What will be printed out if this code is run with the following command line?

```
CMD>> java myprog good morning
public class myprog{
    public static void main(String argv[])
    {
        System.out.println(argv[2]);
    }
}
```

16) What will happen if you try to compile and run the following code?

```
public class Q {
    public static void main(String argv[]){
        int anar[]=new int[5];
        System.out.println(anar[0]);
    }
}
```

17) What will happen if you try to compile and run the following code?

```
public class MyClass {
    public static void main(String arguments[]) {
        amethod(arguments);
    }
    public void amethod(String[] arguments) {
        System.out.println(arguments);
        System.out.println(arguments[1]);
    }
}
```

18) What will be the result of attempting to compile and run the following code?

```
abstract class MineBase {
    abstract void amethod();
    static int i;
}
public class Mine extends MineBase {
    public static void main(String argv[]){
        int[] ar=new int[5];
        for(i=0;i < ar.length;i++)
            System.out.println(ar[i]);
    }
}
```

19) How does a program destroy an object that it creates?

20) What are all the different ways to create an Object in Java Applications?

- 21) What are all the differences between checked exceptions and unchecked exceptions?
- 22) What are all the features of Object-Oriented Model?
- 23) Can you explain clearly how you implemented encapsulation in your project, explain the different ways of implementing encapsulation?
- 24) Can you explain clearly how you implemented encapsulation and abstraction in your project?
- 25) What is constructor?
- 26) What are all the rules for constructors?
- 27) How many constructors you can write inside of a single class?
- 28) I have around 30 constructors inside of a single class, how you can call 21st constructor. Inside of a 15th constructor?
- 29) What are the differences between overloading and overriding?
- 30) Can you tell me the difference between an array and collection framework?
- 31) What is cloning and different types of cloning?
- 32) Can you tell me the difference between shallow copy and deep copy?
- 33) What is a static block, how many static blocks can we write inside of a single class?
- 34) I have static blocks, instance blocks, main method present inside of a class, then what is the order of execution?
- 35) What is SCP (String Constant Pool)
- 36) What is auto boxing and auto unboxing?
- 37) Can you tell me something about auto closeable interface?
- 38) Can you tell me something about try with resources?
- 39) What are all the different ways to fetch the data from collection interfaces/classes?
- 40) I wanted to Store IPL League Franchise names in an order, which collection you prefer to use?
- 41) Have you heard about Identity Hash Map, could you please tell me about the work of Identity Hash Map?
- 42) What do you think about fail safe and fail fast iterators?
- 43) How will you come out of concurrent modification exception scenarios?
- 44) What is the relationship between equals and hash code method?
- 45) How to get the bellow output, can you think and write a logic for this?

Given Input : Srinivasa Reddy Challa
Expected Output : Srinivasa%20Reddy%20Challa

```
public class StringExample {
    public static String replaceValues(String inputString) {
        String result = null;
        // Logic To Get The Expected Output
        return result;
    }
    public static void main(String[] args) {
        replaceValues("Srinivasa Reddy Challa");
    }
}
```

- 46) What will be the out of the given bellow program?

```
import java.util.Iterator;
import java.util.Set;
import java.util.TreeSet;
public class Test {
    public static void before() {
        Set set = new TreeSet();
        set.add("2"); set.add(3); set.add("1");
        Iterator it = set.iterator();
        while (it.hasNext()) {
            System.out.println(it.next() + " ");
        }
    }
    public static void main(String[] args) {
        before();
    }
}
```

47) What will be the output of the given program?

```
public class Theory {
    public static void main(String[] args) {
        String s1 = "abc";
        String s2 = s1;
        s1 += "d";
        System.out.println(s1 + " " + s2 + " " + (s1 == s2));
        StringBuffer sb1 = new StringBuffer("abc");
        StringBuffer sb2 = sb1;
        sb1.append("d");
        System.out.println(sb1 + " " + sb2 + " " + (sb1 == sb2));
    }
}
```

48) Write a program to return a Read Only List?

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.List;
public class MyDemo2 {
    private static List<Integer> getReadOnlyList(int inputArray[]) {
        List<Integer> myReadOnlyList = new ArrayList<Integer>();
        // Fill the Business Logic
        return myReadOnlyList;
    }
    public static void main(String[] args) {
        int inputArray[] = { 10, 23, 34, 45, 56, 67, 45 };
        List<Integer> myReadOnlyList = getReadOnlyList(inputArray);
        try {
            myReadOnlyList.add(245);
            System.out.println(myReadOnlyList);
        } catch (UnsupportedOperationException e) {
            System.out.println(e);
        }
    }
}
```

49) What are all the different ways to create a Thread?

50) Differences between Vector and ArrayList?

51) Is it possible to use a private constructor, if yes tell me few scenarios where we need private constructors in real time applications implementation?

52) Can you tell me the ways to extract actual numeric value stored in the below mentioned character. Example: char c='9', wanted to extract exact digit value.

53) What will be the output of the bellow lines of code.

```
char c = '9';
int x = 10 + c;

System.out.println(x);
```

- a) Compile time error
- b) Runtime Error
- c) 19
- d) 67

54) What are all the types of relationships in java?

55) What will be the output of the below program?

```
public class A1A1 {
    public static void main(String[] args) {
        if (true) {
            break;
        }
    }
}
```

56) Can you please guess the output of the below program?

```
package com.session;
public class Example {
    static {
        System.out.println("From static block-2");
    }
    {
        System.out.println("From instance block-1:");
    }
    public Example() {
        System.out.println("From Cons:" + this);
    }
    public static void main(String[] args) {
        System.out.println("From Main Method");
        Example example = new Example();
        System.out.println("End Of Main Method");
    }
    {
        System.out.println("From instance block-2:");
    }
    static {
        System.out.println("From static block-1:");
    }
}
```

57) What will be the output of the program?

```
package com.session;
public class Question2 {
    public static void main(String[] args) {
        System.out.println("From Main Method");
        int m = m1();
        System.out.println(m);
        System.out.println("End of Main Method");
    }
    public static int m1() {
        try {
            return 1;
        } catch (Exception e) {
            return 0;
        } finally {
            System.out.println("In Side of finally");
            return -1;
        }
    }
}
```

- 58) What is the difference between mutable and immutable? Can you give few examples for the same?
- 59) How to create user defined immutable classes, explain the steps to follow for creating user defined immutable classes?
- 60) Write a program to find common elements in two ArrayList?
- 61) How to remove repeated, duplicate elements from an array?
- 62) Can we override private methods?
- 63) Can we override static methods?
- 64) What is a volatile keyword?
- 65) When to use ArrayList and when to use Linked list?
- 66) Can you tell the drawbacks of arrays over collections or why we prefer collections framework instead of arrays?
- 67) How can you justify java as a platform independent language?
- 68) How can you justify java as a multi-threaded language?
- 69) Can you tell the difference between equals method, == equality operator?
- 70) Can the main method have overloaded?
- 71) Is it possible that finally block will not be executed? If yes list the possible scenarios for the same?
- 72) What part of memory is cleaned as the process in java garbage collection, Stack memory or Heap Memory?
- 73) What is the main objective of garbage collection?
- 74) What is serialization, how you can serialize singleton objects?
- 75) What is externalization?
- 76) Differences between Comparable and Comparator Interfaces?
- 77) What happens if the static modifier is not included in the main method signature in java?
- 78) Can we make the main() thread as a daemon thread?
- 79) Why does the java array index start with 0?
- 80) How is the new operator different from the newInstance method?
- 81) Have you heard about CopyOnWriteArraySet, and what is the use?
- 82) What is the difference between WeakHashMap and IdentityHashMap?
- 83) What is the difference between Collection and Collections?
- 84) When to use Comparator and When to go Comparable?
- 85) How to Sort Employee Objects based on empName and empJob ?
- 86) What is a daemon thread, how to create user defined demon thread in Java applications?
- 87) Can you list the methods of Object Class?
- 88) How to find the class name of an unknown object received as an argument to a method?
- 89) What are all the different areas can we use 'this' keyword?
- 90) How to convert a list into Synchronized list?
- 91) Primitive int is faster or Integer is faster, which one do you prefer to use?
- 92) What is JUNIT and what are all its usages?
- 93) What are all the annotations do you use in Junit?
- 94) How will you make sure test cases are executed in a sequence order?
- 95) What do you mean by tear-up and teardown Methods in Junit?
- 96) What are all different ways to get Junit jar files into your project environment?
- 97) What do you mean by testcase?
- 98) What do you mean by Test Suite?
- 99) What are all the code coverage reports you aware of, and what do you mean by code coverage?
- 100) How you will make sure your class/method code coverage reached more than 95% and above?