

I. Java

1. Which one of the following is not Java Characteristic?
 - a. Object Oriented
 - b. Platform Independent
 - c. Dynamic
 - d. Use of Pointer
2. Java compiler will compile *.java to _____.
 - a. byte code
 - b. assembly language
 - c. machine code
 - d. text file
3. What is the difference between a **class** and an **object**?
 - a. A class is a blueprint to make an object
 - b. An object is a blueprint to make a class
 - c. A blueprint is an object to make a class
 - d. Blueprint class is an object make a class
4. “**this**” keyword in Java is used to _____.
 - a. refer to the current class object
 - b. refer to static method of the class
 - c. refer to parent class object
 - d. refer to static variable of the class
5. This keyword is a non-access modifier used for both classes and methods.
 - a. abstract
 - b. private
 - c. void
 - d. none of the above
6. What class is the top super class in Java that all Java classes extend from?
 - a. java.lang.System
 - b. java.lang.Object
 - c. java.lang.Class
 - d. java.io
7. What operator do you use to call a class constructor and create a new object?
 - a. instanceof
 - b. new
 - c. extends
 - d. implements
8. _____ is a special method that is used to create an object.
 - a. abstract method
 - b. static method
 - c. overloaded method
 - d. constructor
9. If no constructor is defined in the class, then
 - a. There will be a compile time error
 - b. Compiler will generate a parameterized constructor
 - c. Compiler will generate an optional constructor
 - d. Compiler will generate a default constructor from superclass
10. The term “**instance variable**” is another name for _____.
 - a. Static field
 - b. Parameter
 - c. Non-static field
 - d. Argument
11. What does OOP stand for?
 - e. Object Oriented Principle
 - f. Object Opacity of Program
 - g. Object Oriented Programming
 - h. Object Organizing Programming
12. What are the Principles of OOP?
 - a. Encapsulation, Inheritance, Polymorphism
 - b. Inheritance, Abstract class, Interface
 - c. J2SE, J2ME, J2EE
 - d. none of the above
13. We have an interface Coffee{ } and a public class Latte{ }. Which of the following statements is correct?
 - a. class IcedLatte extends Latte implements Coffee { ... }
 - b. class IcedLatte extends Coffee implements Latte { ... }
 - c. class IcedLatte extends Coffee { ... }
 - d. class IcedLatte implements Latte { ... }
14. Choose correct keywords for each underline.

· <u>(1)</u> means to redefine the functionality of an existing method	· <u>(2)</u> is the ability to create multiple methods of the same name with different implementations
(1)	(2)
a. overloading,	overriding
b. function,	overloading
c. overriding,	overloading
d. function,	polymorphism
15. What is the keyword “**throw**” used for?
 - a. To throw an exception explicitly
 - b. To throw exception from one method to another method to handle
 - c. To check if exception occurs or not
 - d. To handle all exceptions that occur in your code
16. Which of these interfaces is implemented by Thread class?
 - a. Runnable
 - b. Connections
 - c. Serializable
 - d. MapConnections
17. What are the values of **k** and **n** after the code is executed?

<pre>int k = 10;</pre>

```
int n = k++%5;
```

- a. k is 11, and n is 0.
- b. k is 11, and n is 1.
- c. k is 10, and n is 0.
- d. k is 10, and n is 1.

18. What is the output of this program?

```
public class Cases{
    public static void main(String[] args){
        float x=7;
        float y=3;
        int z = (int) (x / y);
        switch(z){
            case 1:
                x = x + 2;
            case 2:
                x = x + 3;
            default:
                x = x + 1;
        }
        System.out.println("Value of x: "+ x);
    }
}
```

- a. 8.0
- b. 9.0
- c. 10.0
- d. 11.0

19. What gets printed on the console when the following program is compiled and run? Select the correct answer.

```
public class DoWhile {
    public static void main(String[] args){
        int i = 1;
        do {
            i--;
        } while(i > 2);
        System.out.println(i);
    }
}
```

- a. 0
- b. 1
- c. 2
- d. -1

20. What is the output of this program?

```
class Access{
    public int x;
    private int y;
    void cal(int a, int b){
        x = a + 1;
        y = b;
    }
}
class AccessSpecifier {
    public static void main(String args[]){
        Access obj = new Access();
        obj.cal(2, 3);
        System.out.println(obj.x+" "+ obj.y);
    }
}
```

- a. 3 3

- b. 2 3
- c. Runtime Error
- d. **Compilation Error**

21. Consider the following two classes.

```
class ClassA{
    public void methodOne(int j){}
    public void methodTwo(int j){}
    public static void methodThree(int i){}
    public static void methodFour(int j){}
}
class ClassB extends ClassA {
    public void methodTwo(int i){}
    public void methodThree(Integer i){}
    public static void methodFour(int i){}
}
```

Which method overrides a method in the superclass?

- a. methodOne
- b. **methodTwo**
- c. methodThree
- d. method Two and methodFour

22. Which of the following statements is the correct way of declaring an array in Java?

- a. **int []myArray = new int[5];**
- b. int myArray() = {33,3,4,5};
- c. int myArray = {1,2,3,4};
- d. int myArray() = {};

23. What value is stored in the “choice” variable after running the code below? (2pts)

```
int a = 5, b = 10, c = 15;
int choice = a > b && a > c ? a : (b > c ? b : c);
```

- a. 5
- b. 10
- c. **15**
- d. 0

24. What is the output after running the code below? (2)

```
class Recursion {
    int func(int n){
        int result = func(n - 1);
        return result;
    }
}
class Output {
    public static void main(String args[]){
        Recursion obj = new Recursion();
        System.out.print(obj.func(12));
    }
}
```

- a. 0
- b. 1
- c. Compilation Error
- d. **Runtime Error**

25. What is the output after running the code below? (2)

```
class A {
    static int x;
    void increment(){
```

```

        x++;
    }
}
class B {
    public static void main(String args[]){
        A obj1 = new A();
        A obj2 = new A();
        obj1.x = 0;
        obj1.increment();
        obj2.increment();
        System.out.println(obj1.x+" "+obj2.x);
    }
}

```

- a. 1 2
- b. 1 1
- c. 2 2
- d. Compilation Error

26. What is the output of the program? (2)

```

ArrayList<Integer> a = new
ArrayList<Integer>();
a.add(190);
a.add(267);
a.add(12);
a.add(0);
System.out.println("- Before sorting:" + a);
Collections.sort(a, (o1, o2) ->
(o1 < o2) ? -1 : (o1 > o2) ? 1 : 0);
System.out.println("- After sorting: " + a);

```

- a. Before sorting: 190 267 12 0
After sorting: 190 267 12 0
- b. Before sorting: 190 267 12 0
After sorting: 0 12 190 267
- c. Before sorting: 190 267 12 0
After sorting: 267 190 12 0
- d. Before sorting: 190 267 12 0
After sorting: 267 190 12

27. What is the output after running the code below? (2)

```

public class NumberPrinting {
    public static void main(String[] args){
        int x = 100;
        System.out.print(x + "-");
        changeNumber(x);
        System.out.print(x + "-" + "\b");
    }
    private static void changeNumber(int x){
        x = 200;
        System.out.print(x + "-");
    }
}

```

- a. 100-100-200
- b. 100-200-200-
- c. 100-100-100
- d. 100-200-100

28. What will be the output of the given code? (2pts)

```

public static void main(String[] args){
    try {
        float num = 50 / 0;
        System.out.print("{try block} ");
    } catch (Exception e) {

```

```

        System.out.print("{catch block} ");
        return;
    } finally {
        System.out.print("{finally block} ");
    }
    System.out.print("{outside try block} ");
}

```

- a. {try block}
- b. {catch block} {finally block}
- c. {try block} {catch block} {finally block}
- d. {try block} {catch block} {finally block}
{outside try block}

29. What is the output of the code below? (2pts)

```

class PassA {
    public static void main(String[] args){
        PassA p = new PassA();
        p.start();
    }
    void start(){
        long[] a1 = {3,4,5};
        long[] a2 = fix(a1);
        System.out.print(a1[0] + a1[1] + a1[2]
+ " ");
        System.out.println(a2[0] + a2[1] +
a2[2]);
    }
    long[] fix(long[] a3) {
        a3[1] = 7;
        return a3;
    }
}

```

- a. 12 15
- b. 15 15
- c. 3 4 5 3 7 5
- d. 3 7 5 3 7 5

30. What is the output of the program? (2pts)

```
public class BigValue {
    static boolean b1, b2;
    public static void main(String[] args){
        int x = 0;
        if(!b1) /* Line 7 */
        {
            if(!b2) /* Line 9 */
            {
                b1 = true;
                x++;
                if(5 > 6)
                {
                    x++;
                }
                if(!b1)
                {
                    x = x + 10;
                }
                else if(b2 = true) /* Line 19 */
                {
                    x = x + 100;
                }
                else if (b1 | b2) /* Line 21 */
                {
                    x = x + 1000;
                }
            }
        }
        System.out.println(x);
    }
}
```

- a. 0
- b. 1
- c. 101
- d. 111

II. Web

31. What does HTML stand for?

- a. Hyper Text Markup Language
- b. Hyperlink and Text Markup Language
- c. Homepage Text Markup Language
- d. Hyper Transfer Markup Language

32. In HTML, the Heading tag and Paragraph tag can be represented as...

- a. <head> and <para>
- b. <hr> and <pr>
- c. <h1> and <p>
- d. None of the above

33. Select the correct HTML tag to make a text italic?

- a. <italic>
- b. <Italic>
- c. <i>
- d. <It>

34. What is the correct HTML for making a drop-down list?

- a. <input type="list">
- b. <list>
- c. <select>
- d. <input type="dropdown">

35. What is the correct HTML for inserting an image?

- a. flower.gif
- b.

c.

d. <image src="flower.gif" alt="Flower">

36. How do you insert a comment into an HTML file?

- a. // this is a comment
- b. /* this is a comment */
- c. <!-- this is a comment -->
- d. # this is a comment

37. What is the correct syntax in HTML for referring to an external script called "abc.js"?

- a. <script href="abc.js">
- b. <script name="abc.js">
- c. <script src="abc.js">
- d. None of the above

38. Which HTML element is used to refer to an external style sheet?

- a. style
- b. link
- c. head
- d. base

39. The # symbol specifies that the selector is _____.

- a. class
- b. tag
- c. element
- d. id

40. Which of the correct HTML for making a checkbox?

- a. <input type="checkbox">
- b. <checkbox>
- c. <check>
- d. <input type="check">

41. Which HTML code will open a link in a new tab if the tab is not already opened?

- a.
- b.
- c.
- d.

42. How do you add a background color to all <h1> elements?

- a. h1 { background-color:#FFFFFF; }
- b. all.h1 { background-color:#FFFFFF; }
- c. h1.all { background-color:#FFFFFF; }
- d. all of above

43. What does CSS stand for?

- a. Computer Style Sheets
- b. Cascading Style Sheets
- c. Colorful Style Sheets.
- d. Creative Style Sheets

44. Which CSS syntax is correct?

- a. {body;color=black;}
- b. body {color: black;}
- c. {body;color:black;}
- d. body;color=black;

45. Select the correct syntax for inline CSS.

- a. `<p style="font-size:14px"> Goodluck on your Examination. </p>`
- b. `<p style=font-size:"14px"> Goodluck on your Examination. </p>`
- c. `<p style="font-size:14px"> Goodluck on your Examination. </p>`
- d. `<p style="fontsize=14px"> Goodluck on your Examination. </p>`

46. Which CSS code will hide an element but still keep the same space as before?

- a. `display: none;`
- b. `display: hidden;`
- c. `visibility: none;`
- d. **`visibility: hidden;`**

47. What is the correct CSS for setting a background image?

- a. **`background-image: url('demo.gif');`**
- b. `background-image: demo.gif;`
- c. `background-image: "demo.gif";`
- d. `background-image: (url:demo.gif);`

48. The CSS links state order are

- a. **`:link, :visited, :hover, :active`**
- b. `:link, :visit, :hover, :active`
- c. `:link, :visited, :hover, :active, :inactive`
- d. `:link, :visited, :over, :active`

49. In CSS, what is the default value of the position property?

- a. `absolute`
- b. **`static`**
- c. `relative`
- d. `fixed`

50. In CSS, how would you select the paragraph with the class named **"warning"**?

```
<p class="warning">Don't do it.</p>
<p>Do it.</p>
<p class="warning">Nooo, don't do it.</p>
```

- a. `#warning{}`
- b. `warning{}`
- c. **`.warning{}`**
- d. `p{}`

51. In the following code snippet, what value is given for **the left margin**?

```
margin: 5px 10px 3px 8px;
```

- a. `3px`
- b. `10px`
- c. **`8px`**
- d. `5px`

52. ____ makes it easier to design flexible responsive layout structure without using float or positioning.

- a. **Flexbox**
- b. Box Model
- c. Box Sizing

d. b & c

53. Calculate the total element width of the CSS box model given below: **(2pts)**

- width: 175px;
 - height: 160px;
 - border-width: 37px 12px 11px 13px;
 - outline: 15px 25px;
 - padding: 10px 5px;
 - margin: 32px 13px 18px;
- a. 250px
 - b. 300px
 - c. 269px
 - d. 236px

54. In JavaScript, how do you write "Hello World" in an alert box?

- a. `msgBox("Hello World");`
- b. `alertBox="Hello World";`
- c. **`alert("Hello World");`**
- d. `alertBox("Hello World");`

55. In JavaScript, how do you write a conditional statement for executing some code if "i" is equal to 5?

- a. `if i==5 then`
- b. **`if (i==5)`**
- c. `if i=5`
- d. `if i=5 then`

56. What is the correct way to write a JavaScript array?

- a. `var colors = "red", "green", "blue"`
- b. `var colors = (1:"red", 2:"green", 3:"blue")`
- c. **`var colors = ["red", "green", "blue"]`**
- d. `var colors = 1 = ("red"), 2 = ("green"), 3 = ("blue")`

57. In JavaScript, how do you read the first character of a string?

- a. **`stringName.charAt(0)`**
- b. `stringName.charAt(1)`
- c. `stringName.substr(0)`
- d. `stringName.substr(1)`

58. What does the function `isNaN()` do? **(2pts)**

- a. Return false if the argument is a number
- b. **Return false if the argument is not a number**
- c. Return true if the argument is a number
- d. Return NaN if the argument is not a number

59. A variable on the user's computer that your webpage can use to store or retrieve data from is called...

- a. Session
- b. **Cookie**
- c. Applet
- d. Singleton

60. What is the correct JavaScript code to change the content of the HTML element below?

`<p id="demo">This is a demonstration </p>`

- a. `document.getElementById("demo").innerHTML = "Hello World!";`
- b. `document.getElementByName("p").innerHTML = "Hello World!";`
- c. `document.getElementById("p").innerHTML = "Hello World!";`
- d. `#demo.innerHTML = "Hello World!";`

III. SQL

61. SQL stands for _____.

- a. **Structured Query Language**
- b. Sequential Query Language
- c. Structured Question Language
- d. Sequential Question Language

62. To remove duplicate rows from the results of an SQL SELECT statement, the _____ qualifier specified must be included.

- a. ONLY
- b. UNIQUE
- c. **DISTINCT**
- d. SINGLE

63. Which of the following sorts rows in SQL?

- a. SORT BY
- b. ALIGN BY
- c. GROUP
- d. **None of above**

64. Find the SQL statement below that is equal to the following: SELECT NAME FROM CUSTOMER WHERE STATE in ('VA');

- a. `SELECT NAME IN CUSTOMER WHERE STATE IN ('VA');`
- b. `SELECT NAME IN CUSTOMER WHERE STATE = 'VA';`
- c. `SELECT NAME IN CUSTOMER WHERE STATE = 'V';`
- d. **`SELECT NAME FROM CUSTOMER WHERE STATE = 'VA';`**

65. Which command is used to remove rows from a table called 'CUSTOMER'?

- a. REMOVE FROM CUSTOMER ...
- b. DROP FROM CUSTOMER ...
- c. **DELETE FROM CUSTOMER WHERE ...**
- d. UPDATE FROM CUSTOMER ...

66. Which of the following are the five built-in functions provided by SQL?

- a. **COUNT, SUM, AVG, MAX, MIN**
- b. SUM, AVG, MIN, MAX, MULT
- c. SUM, AVG, MULT, DIV, MIN
- d. SUM, AVG, MIN, MAX, NAME

67. Which data manipulation command is used to combines the records from one or more tables?

- a. SELECT
- b. INCLUDE
- c. **JOIN**
- d. COMBINE

68. Which of the following is known as a virtual table in SQL?

- a. self-join
- b. **view**
- c. inner join
- d. none of above

69. Which of the following is the correct order of an SQL statement?

- a. SELECT, GROUP BY, WHERE, HAVING
- b. **SELECT, WHERE, GROUP BY, HAVING**
- c. SELECT, HAVING, WHERE, GROUP BY
- d. SELECT, WHERE, HAVING, GROUP BY

70. Which of the following commands is used to delete all rows and free up space from a table?

- a. DELETE
- b. DROP
- c. **TRUNCATE**
- d. REMOVE

-- End of Multiple Choice --

Essay Writing in English

- Writing time : 60 Minutes
- Word Count : At least 300 words

Please write an Essay about the topic below.

- Pick one technological invention (Internet/television/electric cars/mobile phones) and describe how it affected people's lives.

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