

Q1. Choose and write the correct option :

[1 x 5=5]

- a. In Java Compilation, Source Code is converted to:
 - i) Object Code ii) Unicode iii) Bytecode iv) Machine Code
- b. BlueJ bundles a Text Editor, a compiler, a debugger and a terminal window known as –
 - i) API ii) IDE iii) OS iv) Interface
- c. Range of values of short data type:
 - i) -128 to 128 ii) -128 to 127 iii) -32768 to 32768 iv) -32768 to 32767
- d. The exit-controlled loop of Java:
 - i) for ii) while iii) do iv) do..while
- e. Logical operator of Java that also is a Unary Operator:
 - i) ++/-- ii) || iii)! iv) &&

Q2. Answer the following as directed:

<p>a. <code>int a=18, b=12;</code> <code>if(a>20 && b<15)</code> <code>t=true;</code> <code>else</code> <code>t=false;</code></p> <p>Write the output and data type of the variable t [1]</p>	<p>b.</p> <p><code>System.out.println(Math.sqrt(0));</code> <code>System.out.println(Math.pow(49,1/2));</code> [2]</p>
<p>c. Rewrite using Logical operators: <code>if(x>5) if(x>y)</code> <code>System.out.println(x+y);</code> [1]</p>	<p>d. Rewrite using Ternary operator: <code>if(a>b && a>c) max=a;</code> <code>else if(b>a && b>c) max=b;</code> <code>else max=c;</code> [1]</p>

Q3. Write Java programs for the following:

[5 x 2= 10]

- a) Define a class ParkingLot with the following description:

Instance Variables / Data Members:

- `int vno` : to store the vehicle number
- `int hours` : to store the number of hours the vehicle is parked
- `double bill` : to store the bill number

Member methods :

void input () : to input and store the vno and hours

void calculate() : to compute the parking charge at the rate of Rs.3 for
the first hour and Rs.1.50 for each additional hour

void display () : to display the details with appropriate messages

Write main() method to create and object of the class and invoke / call the above methods.

b. Design a class NRNP with the following details:

void Fibo() : to input a number,n- generate and print the first n terms of the Fibonacci series, starting 0 and
1 ; Series goes as 0,1,1,2,3,5,8 etc.,

[3rd term is sum of 2nd and 1st and continues]

void Triplets () : to generate and print the Pythagorean Triplets from 1 to 100;

Hint : sum of squares of any two numbers is equal to the square of third number]

No need to Invoke in main()

*****ALL THE BEST*****