Quarterly Examination 2018-2019
Computer Science

Class : VIII

Time : 2 hrs.+15min. **Full Marks : 80**

SECTION—A
(Attempt all Questions)

I. Explain the following terms — **[5x1=5]**

(a) Algorithm (b) flowchart

(c) on page connector (d) Encapsulation

(e) Inheritance

II. Answer the following.

(1) Give 2 advantages of flow chart ? [2]

(2) What do you understand by the terms constants and variables ? [2]

(3) Write down the difference between Math.Ceil() and Math.floor() [2]

(4) Differentiate between source code and object code? [2]

(5) Name any 2 logical operators ? [2]

(6) Name any 2 relational operators ? [2]

(7) Who introduced Flowcharts ? [1]

(8) The word Algorithm has been named after whom ? [1]

(9) Name the world's youngest SUN certified Java Programmer ? [1]

(10) Who is known as the Father of the Java Programming language ? [1]

{Turn Over}

III. Draw the flowchart symbols for the following. [5x1=5]

(1) Start

(2) Input A, B

(3) A = A+1

(4) Is A > B

(5) Print A

IV. Write the output of the following program code — [6x2=12]

(1)
```
{
        int x = 7, y = 3;
{
System.out.println (++x * ++y);
System.out.println (x -- / y --);
}
}
```

(2)
```
{
System.out.print ("kerala");
System.out.printly ("samajam");
System.out.print ("Model");
System.out.println("school");}
```

(3)
```
{
double a = 5.3, b = 8.1, c = 7.4;
double s = a+b+c;
System.out.print ("sun="+s);
}
```

(4)
```
double p = 3.65, q = 3.56;
{
System.out.println (Math.max (p,q));
System.out.println (Math.min (p,q));
}
```

5)
```
{
double s = 9.0;
System.out.println (Math.pow (s,2));
System.out.println (Math.sqrt (s));
}
```


6)
```
{
int m = 6 , n = 4;
System.out.println (m++ + n++ + m + n);
}
```

SECTION—B
(Attempt any 3 Questions) [3x7=21]

(1) Write an algorithm and make a flowchart to calculate the sum and product of two numbers.

(2) Write an algorithm and draw a flowchart to calculate the area of a triangle.

area = ½ * base * height

(3) Write an algorithm and make a flowchart to find the cost of 25 pens when the cost of one pen is Rs. 20.

(4) Write an algorithm and draw a flowchart to print the perimeter of a square.

perimeter = 4 * side

SECTION—C
(Attempt any 3 programs) [3x7=21]

(1) Write a program to accept the length and breadth of a rectangle. Calculate the area and perimeter of a rectangle.

(2) Write a program to input the principle, rate and time and print the simple interest and amount.

$Si = \frac{p * r * t}{100}$ amount = si + principle

(3) Write a program to enter the length, breadth and height of a cuboid and calculate its total surface area.
tsa = 2 * (lh+bh+bl)

(4) Write a program to input the radius of a circle and print the area and circumference of a circle. (use Math function)

area = πr^2

circumference = $2\pi r$