

Half Yearly Examination 2018-2019
Computer Science

Class : VIII

Time : 2Hrs. 15 min.

Full Marks : 80

SECTION A (Attempt all questions)

I. Define the following terms : [5x1=5]

- (a) default (b) break (c) switch
(d) fall through (e) compound statements.

II. Answer the following : [4x2=8]

1. Explain how if else statement works.
2. Differentiate between if else and Ternary operator.
3. How do switch statement differs from if else.
4. Name any 4 data types in Java.

III. Read the following and answer them. [5x1=5]

char ch;

if (ch >= 'A' && ch <= 'z')

1. Name the logical operator in the above statement.
2. Name the relational operator.
3. What is the data type ?
4. What is the variable name ?
5. What is the given range in the above if statement ?

IV. Write the output of the following programs. [7x2=14]

1. If int x = 4, y = 12 evaluate Z, where
 $z = (-- x * 5) + (y -- / z) ;$

{Turn Over}

2. `System.out.print (Math.ceil (5.3) + Math.floor(4.7));`
3. `System.out.println (Math.max (4,5) * Math.min(5,6));`
4. `int a = 15 , b = 5;`
`system.out.println (((a*b)>(a%b))? 30:40);`
5. Switch (2)
{
case 1 : `System.out.println ("Idea");`
case 2 : `System.out.println ("Airtel");`
case 3 : `System.out.println ("JiO");`
case 4 : `System.out.println ("vodafone");`
}
6. `int x = 12 ; y = 4;`
`if (x % y == 0)`
`System.out.println ("x+y=" + x + y);`
`else`
`system.out.println ("x+y=" + (x+y));`
7. `int a = 42 , b = 7;`
`if ((a - b) > (a * b))`
`Sytem.out.print ("History \n civic \t Geography");`
`else`
`System.out.print ("physics \t chemistry \n Biology");`

SECTION B (Attempt any 6 programs and write the variable description with each) [6x8=48]

- (1) Write a program to enter 2 integers and a choice to compute as per the given menu —
 - 1 print the cube of the first integer.
 - 2 print the square root of the second integer.
 - 3 print the maximum of the two values.
(use math function within switch statement)

- (2) Write a program to accept a number and check if it is greater than 10 or not. If greater print the square of the number, else print the cube of the number. (use ternary operator).
- (3) Write a program to input the length and breadth of a rectangle along with the user's choice to calculate the following as per user's choice
 1. Area of a rectangle = $l * b$
 2. Perimeter of a rectangle = $2 * (l + b)$
 3. Diagonal of a rectangle = $\sqrt{l^2 + b^2}$
- (4) Write a programme to accept a number from the user (1,2,3,4) and print the corresponding colour.
 - 1 — Red
 - 2 — Blue (use nested if or fall through method)
 - 3 — Green
 - 4 — Yellow
 - default — wrong choice
- (5) Write a program to input 3 integers and print the largest of the 3 numbers. (if else if)
- (6) Write a program to enter a number
 - (i) check if it is positive or negative.
 - (ii) check if it is even or odd.
(use ternary operator)
- (7) Write a program to accept a character and check if it is lower case, upper case, digit or a special symbol. (if else if)