ANNUAL EXAMINATION : 2014-2015

Class - IX

Time : 2 hr. **Subject - Computer Application** **M.M. : 100**

Answers to this paper must be written on the paper provided separately.
You will not be allowed to write during the first 15 minutes.
This time is to be spent in reading the question paper.
The time given at the head of this paper is the time allowed to write the answers.
This paper is divided into TWO sections.
Answer ALL the questions in Section A and any FOUR questions from Section B.
The intended marks for questions or parts are given in [ ].

SECTION - A [40 MARKS]

Attempt ALL questions from this section.

Q.1- a. What is type conversion? [2]

b. Define an array. [2]

c. What is operator? [2]

d. What are escape sequence characters? [2]

e. What is data type? [2]

Q.2- a. What is dynamic initialization? [2]

b. Write difference between break and continue statements. [2]

c. What is composite data type? [2]

d. What is a block? [2]

e. What is ternary operator? [2]

Q.3- a. What is the return type of the following string functions : [4]

i. equals( )
ii. endsWith( )
iii. length( )
iv. charAt( )

b. Give the output of following : [4]

```
String x = "Computer";
String y = "Application";
```

i. System.out.println(x.substring(1 , 5));
ii. System.out.println(x.equals(y));
iii. System.out.println(x.charAt(3));
iv. System.out.println(y.length( ));

c. Write two advantages of using array. [2]

d. If y = 14 then find:- [2]

z = y – – * y + + % 2;

e. Write Java expression for the following:- [2]

i. $z = x^3 - y^3 - \frac{xy}{z}$ ii. $d = \sqrt{\ell^2 + b^2}$

f. Write the output of the following:- [2]

```
int a[ ] = new int[5];
a[0] = 4; a[1] = 8; a[2] = 7; a[3] = 12; a[4] = 3;
System.out.println(a[2 + 1]);
```

g. Rewrite the following using if-else statement:- [2]

```
Commission = (sale > 5000) ? sale * 10/100 : 0;
```

h. State the output:- [2]

```
int m = 100;
int n = 110;
while (++m < – –n)
System.out.println(m);
```

SECTION - B [60 MARKS]

Attempt any FOUR questions from this Section.

Each program should be written using variable description / mnemonic codes such that the logic of the program is clearly depicted. Flow charts are not required.

Q.4- a. What is the difference between embedding and linking? [5]

b. Define form and queries. [5]

c. What is data redundancy? [5]

Q.5- a. What are the features of operating system ? [5]

b. What is primary key and what is its significance? [5]

c. What is Database? [5]

Q.6- a. Write a program to input a word and check whether it is a Palindrome word or not. [8]

b. Write a program to input a number and check whether it is perfect number or not. [7]

Q.7- Write a program to display the following patterns:- [15]

A
```
1
1 2
1 2 3
1 2 3 4
```

B
```
4 4 4 4
3 3 3
2 2
1
```

Q.8- Write a program to input 10 alphabets in an array and display them in ascending order using bubble sort. [15]

Q.9- Write a program to input total number of telephone calls used by customers. Calculate telephone monthly bill according to the following table:- [15]

Calls	Rate
0 – 100	₹ 1 / call
101 – 200	₹ 2 / call
201 – 300	₹ 3 / call
> 300	₹ 3.50 / call

Monthly rent = ₹ 200/-

*****