ANNUAL EXAMINATION : 2012-2013

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. Explain fall through. [2]

b. Explain static initialization of array. [2]

c. Differentiate between entry control and exit control loop. [2]

d. State two types of data types in Java. [2]

e. Explain sorting. Which are the two techniques of sorting used in Java? [2]

Q.2- a. What is compound statement? Give two examples. [2]

b. What is the use of new operator? [2]

c. Write the difference between length and length( ) functions. [2]

d. Differentiate between break and continue statements. [2]

e. Define implicit type conversion and explicit type conversion. [2]

Q.3- a. Write the equivalent for loop for the following : [2]

```
int p = 30, i = 10;
while(i >= 2)
{
    p++;
    System.out.print(p);
    i - = 2;
}
```

b. Write the syntax to assign the cube of 12.0 into a variable. [2]

c. Write an equivalent Java expression for : [2]

i. $\frac{\sqrt{a+b^n}}{n^a+1}$ ii. $\frac{a^2+b^3}{\sqrt{4}+a^b}$

d. What will be the final value of p, if p = 10? [2]

i. p - = p * ++p % 2 ii. p = p++ + ++p - - -p

e. What will be the value of int x if x = ('A' + 'B') % 2; [2]

f. Convert the following conditional statement into if-else:- [2]

```
max = (a > b) ? a : b ;
```

g. [4]

```
int a[ ] = {34, 12, 40, 2, 4};
a[0] = a[3]]
```

What will be the value of

i. System.out.print(a[1] + a[2]);

ii. System.out.print(a[1 + 3]);

h. [4]

```
String x = "Hello";
String y = "Friends";
```

i. System.out.println(y substring(0, x . length( ));

ii. System.out.println(x indexOf(y·charA + (3));

SECTION - B [60 MARKS]

Attempt any FOUR questions from this Section.

Q.4- a. What is word processor? Write its features. [5]

b. Write short note on:- [5]

i. Thesaurus

ii. Slide transition

c. What are the advantages of DBMS? [5]

Q.5- a. Write the features of spreadsheet. [5]

b. What do you understand by Ethics? Mention three ethical values. [5]

c. Name five services provided by internet. [5]

Q.6- a. Write a program to input a word and display the word after removing all the vowels:- [8]

Sample Input : EDUCATION

Sample Output : DCTN

b. Write a program to input a number display its factors. [7]

Q.7- a. Write a program to input a word and check whether it is a palindrome or not. A palindrome is a word that reads the same from left to right and vice versa. [7]

e.g. MADAM , NITIN, etc.

b. Write a program to input marks of 10 students in an array and display the top three marks in descending order. [8]

Q.8- a. Write a program to input 10 numbers in an array in ascending order. Enter a number and search using binary search technique. [10]

b. Write a program to display following pattern :- [5]

```
1
1  2
1  2  3
1  2  3  4
1  2  3  4  5
```

Q.9- a. Write a program to display all prime numbers between 1 and 100. [8]

b. $x + \frac{x^2}{3!} + \frac{x^3}{5!} + \frac{x^4}{7!} + \ldots \frac{x^{10}}{19!}$ [7]

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