ICSE SEMESTER 2 EXAMINATION

SPECIMEN QUESTION PAPER 1

COMPUTER APPLICATIONS

Maximum Marks: 50

Time allowed: One and a half hours

Answers to this Paper must be written on the paper provided separately.

You will not be allowed to write during the first 10 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 for writing the answers.

*Attempt **all** questions from **Section A** and **any four** questions from **Section B**.*

The intended marks for questions or parts of questions are given in brackets [ ].

SECTION A

*(Attempt **all** questions.)*

Question 1

Choose the correct answers to the questions from the given options. (Do not copy the Question, Write the correct answer only.)   [10]

i.   **State the method that:**
       1. Converts a string to a primitive float data type
       2. Converts a string to a Float wrapper class

       a)   1 Float.parseFloat() , 2 Float.valueOf()
       b)   1 Float.valueOf(), 2 Float.parseFloat() ,
       c)   1 Float.toString() , 2 Float.floatValue()
       d)   1 Float.parseFloat() , 2 Float.floatValue()

Ans.   a) 1 Float.parseFloat(), 2 Float.valueOf()

ii.   **Write the output of the following:**
       System.out.print (Character.isUpperCase('d'));
       System.out.println(Character.toUpperCase('l'));

       a)   DL

b) D
   L
c) falseL
d) false L

iii. **What is the output of the following statements when executed?**
char ch[ ]= {'I', 'N', 'T', 'E', 'L', 'P', 'E', 'N', 'T', 'I', 'U', 'M'};
String obj= new String(ch, 3, 4);
System.out.println("The result is = "+ obj);

a) TE
b) ELPE
c) TELP
d) INTE

iv. **Which of the following is not a wrapper class?**

a. Byte
b. Int
c. Long
d. Character

v. **Which of the following variable is a class variable?**

public class Simply
{
int var1;
static int var2;
void test() {
   int var3;
}
}

a) None of the above.
b) var1
c) var2
d) var3

vi. **Give the total number of bytes occupied by this array?**
int ar[25]

a) 25
b) 50
c) 100
d) 200

vii. **Which is correct statement to perform the following task on a string:**

Extract the second last character of a word stored in the variable wd.

    a) char ch = wd.substring(wd.length(), 2);
    b) char ch = wd.lastIndexOf(2);
    c) char ch = wd.length() -2;
    d) char ch = wd.charAt(wd.length() -2);

viii. **Which access specifier allows accessibility by all classes in the same package, but only by subclasses in a different package**
    a) public
    b) private
    c) protected
    d) default

ix. **If int x[]= {5,9,7,3,2,8}; What are the value of A and B?**
    int A= x.length;
    int B= x[3]+x[1]*x[2];

    a) A = 6, B = 66
    b) A = 6, B = 52
    c) A = 5, B = 66
    d) A = 5, B = 52

x. **If String n1 = "99"; and String n2="100"; Give the output of the following:**

    String st= n1+n2;
    System.out.print (st.indexOf("1")) ;
    System.out.println(Integer.parseInt(n1) + Integer.parseInt(n2));

    a) 2199
    b) 299100
    c) 3199
    d) 399100

SECTION B

*(Attempt **any four** questions.)*

Question 2.

Write a class in Java to store 6 elements in an array X and 4 elements in an array Y. Now, produce a third array Z, containing all the elements of array X and Y. Display the resultant array.
Sample Input:

X[0]	X[1]	x[2]	x[3]	X[4]	X[5]
10	21	44	45	32	35

Y[0]	Y[1]	Y[2]	Y[3]
56	27	91	64

Sample Output:

The list after merging of two arrays:

Z[0]	Z[1]	Z[2]	Z[3]	Z[4]
10	21	44	45	32

Z[6]	Z[7]	Z[8]	Z[9]	Z[10]
35	56	27	91	64

[10]

Question 3.

Write a class to initialize the following character arrays and print a suitable message after checking the arrays whether the two arrays are identical or not. Make suitable use of boolean data type.
X[]={'m', 'n'. 'o'. 'p') and Y[]={'m', 'a', 'o', 'p'}   [10]

Question 4.

Define a class which takes in 10 values in an array and creates another array which has cubes of the values and prints it.   [10]

Question 5.

Define a class which takes in a string and converts it into lowercase and then replaces all occurrence of "is" with "was". Print the difference in length of both strings.   [10]

Question 6.

You can encode or decode a string in many ways. One of the simplest way is to replace each letter, by a letter at a fixed distance ahead or behind in the alphabet, where the alphabet is assumed to wrap around (i.e. 'A' follows 'Z').

 For example, Given string: "ZEOLOGY" and encode = 2, means each character moves three characters ahead. Thus, new String: BGQNQIA.

Define a class in Java to accept a String and display the new string after encoding 3, means each character moves two characters ahead.
   Sample Input: "COMPUTER"
   Output: FRPSXWHU   [10]

Question 7.

Define a class in Java to accept and store 10 names in an array. Print all names which start with alphabet 'R'.   [10]