**D E P A U L S C H O O L**

**UKKUNAGARAM, VISAKHAPATNAM – 530 032**

**I – CYCLIC EXAMINATION, 2012-2013.**

**Subject : Computer Applications Marks : 100**

**Class : X – ICSE 12-October, 2012 Time : 2Hrs**

Answer 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 end of this paper is the time allowed for writing the answers.

*This paper is divided into two sections.*

*You are to answer all questions from Section A, and any four questions from Section B.*

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

**Section – A ( 40 Marks )**

*Attempt* ***all*** *questions.*

While answering question from this part, indicate briefly your working and reasoning,

where ever required.

**Question 1.**

(a) What are the smallest and largest integer values for the primitive type short? [2]

(b) What is the value of x after evaluating x + = x + + + - - x + 4;

if x = 3 before the evaluation? [2]

(c) What is the value of ((1/0.0) - (1/-0.0)) [2]

(d) Name the primitive data types to represent real numbers. [2]

(e) What is the equivalent while loop for the loop [2]

for(;;){s;} /\* where ‘s’ is some statement\*/

**Question 2.**

(a) Explain the term type casting. [2]

(b) What is the

 i) package that is invoked by default. [1]

 ii) keyword to use the classes defined in a package. [1]

 (c) State the difference between **=** and **==** [2]

(d) Write the equivalent Java statement of the following expression. [2]

 $\frac{\sin(x)}{\cos(x) + \tan(x)}$

 (e) What is the syntax of ternary operators? [2]

**Question 3.**

(a) Give the output of the following code fragment, when [3]

 i) **opn=’b’**

 ii) **opn=’n’**

 iii) **opn=’a’**

**switch(opn)**

**{**

**case ‘b’:**

 **System.out.println(“welcome to java”);**

 **break;**

**case ‘n’:**

 **System.out.println(“welcome to oops”);**

**default:**

 **System.out.println(“world’s leading technologies”);**

**}**

(b) What is Java Byte Code? [2]

(c) What is the output of the following statements. If a=3 and b=5. [5]

 i) **System.out.println(“a + b = ”+(a+b));**

 ii) **System.out.println(“a > b = ”+(a>b));**

 iii) **System.out.println(“a == b”+(a==b));**

 iv) **System.out.println(“a ! = b ”+(a!=b));**

 v) **System.out.println(“The greater number = ”+
 (Math.max(b,a)));**

**Question 4.**

(a) List any five exceptions. [5]

(b) Find the syntax errors in the following code. [5]

Line 1: **Class you**

Line 2: **{**

Line 3: **public void main**

Line 4: **{**

Line 5: **int x = 5;**

Line 6: **float y = 3.5;**

Line 7: **double z = (x<y)?x;y;**

Line 8: **System.out.println("The smallest number is +
 "z);**

Line 9: **}**

Line 10: **}**

 **Section – B ( 60 Marks )**

*Attempt the following* ***four*** *questions from this section.*

*Each program should be written in such a way that it clearly depicts the logic of the problem. This should be achieved by using output, variable description and comments in the program.*

**Question 5.**

Accept the age of three persons whose name is A, B and C. Find who is younger? [15]

**Question 6.**

Accept a number and find the reverse of the number. [15]

**Question 7.**

Write a program to accept the Fahrenheit temperature and convert to degrees Celsius. [15]

**Question 8.**

Write a program to accept two strings and compare them. [15]