Advanced Diploma in Information Technology (ADIT) / Bachelor in Information Technology (BIT)

Term-End Examination

June, 2007

CST-301 : INTERNET TECHNOLOGIES

Time : 2 Hours   *Maximum Marks : 50*

Note :   *All questions from Section A are **compulsory**. All objective type questions carry one mark each. Answer any **two** questions from Section B.*

SECTION A

1.   Other classes can change private data of a class by

   (a)   making the class a subclass of that class

   (b)   manipulating that memory location

   (c)   through methods that the class provides

   (d)   not possible

2.   The return value of the statement y++=6; is

   (a)   7

   (b)   6

   (c)   compiler dependent

   (d)   void

3.   The modulus(%) operator can be used with

   (a)   int

   (b)   float

   (c)   double

   (d)   All of the above

4. A finalize( ) method runs when

   (a) garbage collector is about to reclaim the object

   (b) the object goes out of scope

   (c) the object calls the finalize( ) method

   (d) memory is running low on the machine

5. In nested ifs, an else is paired with

   (a) first if of the series

   (b) not defined

   (c) depends on indentation

   (d) with the most recent if

6. Which of the following is true about multiple inheritance ?

   (a) Interfaces can use it; classes cannot

   (b) Interfaces cannot use it; classes can

   (c) Both interfaces and classes can use it

   (d) Neither interfaces nor classes can use it

7. Command line arguments are passed to an application as

   (a) int

   (b) string

   (c) object

   (d) None of the above

8. Which of the following types are *not* saved by the serialization facilities ?

   (a) Static

   (b) Int

   (c) Double

   (d) String

9. The scope of a variable declared in a block is

   (a) throughout the block after that point

   (b) throughout the whole block

   (c) throughout the whole method

   (d) throughout the whole class

10. Calling Clone( )

   (a) makes an exact copy

   (b) makes a distinct copy

   (c) does not make another object

   (d) None of the above

11. Write HTML code to create a webpage with a table giving information about 3 products with name, cost and delivery period for each in different columns. Each row is a link to a different page with more information on that product. On each page, provide a link to return to the main page.

SECTION B

*Answer any **two** questions from this section.*

12. (a) Write a Java program to input 2 numbers less than 100. Find out whether they are relatively prime, that is, have no common factors except 1.

    (b) Write HTML code to make 3 webpages. Each page consists of one paragraph. Each page has links to go to the next, previous, first or last page as appropriate.

13. Distinguish between the following with appropriate examples :

    (a) & and && operators

    (b) break and return statements

    (c) catch and finally

    (d) transient and volatile modifiers

    (e) Byte stream and character stream classes

14.   (a) Write HTML code to create a webpage with 3 paragraphs. The first has bold text in the largest available blue font. The second has an unnumbered list of 3 items. The third gives a link to e-mail feedback to a pre-defined address.

(b) Write an applet that displays a message on the status window of the browser whenever an "E" is typed on the keyboard.

(c) Write a program to read two numbers that are the real and imaginary parts of a complex number. Print out the modulus of the number.