

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

**Term-End Examination**

**December, 2007**

**CST-301 : INTERNET TECHNOLOGIES**

*Time : 2 Hours*

*Maximum Marks : 50*

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

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**SECTION A**

1. The comma separator can be used 1
  - (a) anywhere in a program
  - (b) in a while loop
  - (c) in a do-while loop
  - (d) in a for loop
  
2. Method overriding hides 1
  - (a) a subclass method from superclass
  - (b) a superclass method from subclass
  - (c) subclass private methods from superclass
  - (d) superclass private methods from subclass
  
3. Variable declaration 1
  - (a) allocates space for the variable
  - (b) assigns a value to the variable
  - (c) makes the variable known to the compiler
  - (d) All the above
  
4. To get a Class object 1
  - (a) call the getClass( ) method of object
  - (b) declare the object to be of class Class
  - (c) either of the above
  - (d) neither (a) nor (b) above will work

5. The star form of import (e.g. java.io.\*) 1  
(a) improves run time performance  
(b) slows down run time performance  
(c) improves compile time performance  
(d) slows down compile time performance
6. Which of the following is false for a string object ? 1  
(a) It is fixed length  
(b) It is immutable  
(c) It is in the package java.lang  
(d) None of the above
7. Deadlock can occur with programs using 1  
(a) input-output  
(b) applets  
(c) loops  
(d) multi-threading
8. Parameters in java are passed by 1  
(a) value  
(b) name  
(c) reference  
(d) can be any of the above
9. The new operator 1  
(a) initialises variables  
(b) declares variables  
(c) makes space available for variables  
(d) None of the above
10. Which of the following is *not* a valid literal ? 1  
(a) 0X8  
(b) 08  
(c) 8  
(d) 08L
11. Use HTML to make a personal website that gives :. 10  
(i) a welcome screen with a 100 × 200 pixel image  
(ii) personal information page  
(iii) resume page with links to companies worked  
(iv) hobbies

Interconnect the pages through a suitable scheme.

## SECTION B

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

12. (a) A random walk is one where one moves in any one of 4 directions up, down, left or right at random at each step. Each time the distance covered in that random direction is the same. Write a java program to do a random walk a given number of times and find the final distance from the starting point. 8
- (b) Write HTML code to make a site with 3 pages. The first page presents 3 choices : 7
- (i) Run an applet with certain parameters
  - (ii) Perform a search using Google
  - (iii) Contact the administrator

**Note :** Make and mention any needed assumptions.

13. Distinguish between the following with a suitable example for each : 5×3=15
- (a) | and || operators for integers
  - (b) Clone and Copy made of an object
  - (c) PrintStream and PrintWriter
  - (d) Serializable and Externalizable interfaces
  - (e) equals and equals ignore case() methods
14. (a) Write HTML code to display a welcome screen with a 200 × 200 pixel image and text in bold blue large font. On clicking the image you reach a detail page that has company information. Clicking this takes you to a farewell page that plays music as you reach it. 5
- (b) Write an applet that shows random coloured dots at random points in the display area. When you click the mouse the whole area is cleared and the sequence starts again. 5
- (c) A deck of cards has four suits — spades, hearts, diamonds and clubs in descending order. The cards in each suit are ranked from A, K, Q, J, 10, ... 2, again in descending order. So spade 2 wins against a club A. Write a java program to accept two cards as input and output the winner. 5

