

**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