

**Bachelor in Information Technology (BIT)**

**Term-End Examination**

**June, 2007**

**CSI-03 : SOFTWARE CONSTRUCTS AND TOOLS**

*Time : 2 Hours*

*Maximum Marks : 60*

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

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**SECTION A**

1. What key combination takes you from anywhere in an Excel spreadsheet to cell A1 ?
  - (a) Control, ←
  - (b) Control, PgUp
  - (c) Shift, Home
  - (d) Control, Home
  
2. What key combination lets you select two disjoint cells in a spreadsheet ?
  - (a) Control + mouse click on both cells
  - (b) Shift + mouse click on both cells
  - (c) Alt + mouse click on both cells
  - (d) Not possible to do so
  
3. What is the default number of worksheets in an Excel workbook ?
  - (a) 1
  - (b) 4
  - (c) 3
  - (d) 5
  
4. What is the keyboard shortcut to find and replace text in the spreadsheet ?
  - (a) Control-H
  - (b) Alt-F
  - (c) Alt-R
  - (d) Control-R

5. Which of the following is **not** a Java keyword ?
- (a) else
  - (b) switch
  - (c) transient
  - (d) friend
6. Which keyboard combination lets you display formulae in the spreadsheet instead of cell values ?
- (a) Control-F
  - (b) Control `
  - (c) Control-Enter
  - (d) Alt-F
7. Cells in a spreadsheet can be referred to by
- (a) Cell column and then row
  - (b) Cell name
  - (c) Cell contents
  - (d) Cell attributes like font
8. Which of the following is true about variables declared in a public interface ?
- (a) They are implicitly private
  - (b) They are implicitly public and static
  - (c) They are implicitly public, static and final
  - (d) They are implicitly public and final

9. Which of the following is a valid modifier for a top level class ?
- (a) private
  - (b) protected
  - (c) public
  - (d) package
10. The value of a local int variable that has not been assigned explicitly is
- (a) 0
  - (b) undefined
  - (c) null
  - (d) random
11. (a) Write a Java program to input a string. The output should be the string where each output character is the exclusive OR of the corresponding input character with a single character key. The key should also be an input to the program by the user.
- (b) You have an Excel worksheet with confidential payroll data and calculations. Discuss the various security and protection features available to you to keep your worksheet safe from unauthorised alteration.

## SECTION B

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

12. Distinguish between the following :
- (a) Class and Object
  - (b) | and || operators
  - (c) throw and throws keywords
  - (d) equals( ) method and == operator
  - (e) method overriding and method overloading

- 13.** (a) Describe with examples, how you can perform various types of data validation in Excel during input.
- (b) Explain briefly
- (i) Transient variable
  - (ii) Implicit type conversion
  - (iii) Abstract class
- 14.** (a) Write a Java program to input a natural number  $n$  and output its factorial,  $n!$  Use recursion.
- (b) You need to create an Excel workbook with 5 worksheets called first, second, third, fourth and fifth respectively. The sheet tabs should be black, blue, red, green and orange respectively in colour. Each worksheet should have a different image in the background. In the sheet "third", the columns B and P should be hidden. Explain how you would do the above starting from a new blank workbook.