

Bachelor in Information Technology (BIT)

Term-End Examination

December, 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.

SECTION A

1. Which of the following does **not** help you make multiple copies of the selected range ? 1
 - (a) Right click mouse, select copy, select paste at destination
 - (b) Right click mouse, select copy, select "Paste special" at destination
 - (c) Ctrl-C at source, Ctrl-V at destination
 - (d) Ctrl-C at source, Enter key at destination

2. Which of the following is **not** a valid option for vertical alignment in a cell ? 1
 - (a) Top
 - (b) Justified
 - (c) Bottom
 - (d) Center

3. Which of the following will make text invisible ? 1
 - (a) Use an unreadable font
 - (b) Make the foreground and background colours the same
 - (c) Change the language of the cell
 - (d) Use a cipher to transform the text

4. Comments can be attached to a 1
 - (a) Sheet
 - (b) Workbook
 - (c) Cell
 - (d) Tab

5. In a two dimensional Java array 1
- (a) both dimensions must have the same number of elements
 - (b) the second dimension must have more elements than the first
 - (c) the first dimension must have more elements than the second
 - (d) either dimension can have any number of elements
6. How many rows are there in an Excel spreadsheet ? 1
- (a) Memory dependent
 - (b) 65,536
 - (c) 64,000
 - (d) 4096
7. A circular cell reference in a formula gives 1
- (a) a warning
 - (b) an error
 - (c) an information message
 - (d) closes the workbook
8. Which of the following allows for early loop iteration ? 1
- (a) Break
 - (b) Continue
 - (c) Return
 - (d) Switch
9. When there are multiple catch blocks in a try 1
- (a) all are executed
 - (b) the last one that matches the exception is executed
 - (c) multiple blocks are not allowed
 - (d) the first one that matches the exception is executed

10. A class that implements an interface that inherits another interface must 1
- (a) implement at least one of the methods of the sub interface
 - (b) need not implement any method of the sub interface
 - (c) implement all methods defined in the sub interface
 - (d) implement all methods defined in the sub interface as well as its super interface
11. (a) Write a Java program to count the number of occurrences of each letter of the alphabet in the input and to print this list out. Ignore the case of the letters so that 'a' and 'A' are taken to be the same. 10
- (b) There is an Excel worksheet with a width much greater than can fit on a printed page, but you need to print a portion from the left that is only slightly greater than the page width. How will you print the sheet given the following requirements ? 10
- * Header and footer with page numbers
 - * Cell boundaries not to show up
 - * Watermark "sample" to appear on each page

SECTION B

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

- 12.** Distinguish between the following : 3×5=15
- (a) Method overriding and Method overloading
 - (b) Abstract class and Interface
 - (c) Error and Exception
 - (d) Nested if and Switch
 - (e) Byte and Character streams
- 13.** (a) Describe the various options in Excel to have the contents of a worksheet spoken out by the computer. 9
- (b) Explain briefly : 6
- (i) Dynamic Method Dispatch
 - (ii) Constructor
 - (iii) Object class
- 14.** (a) Write a Java program to count the number of words in a sentence. Words are separated by a space while a sentence is terminated by '.', '?' or '!' character. 8
- (b) An Excel worksheet has an employee list with columns for name, date of joining and basic salary. How will you 7
- (i) format the data in the columns appropriately,
 - (ii) ensure that only valid data is entered in a column ?