

BACHELOR IN INFORMATION TECHNOLOGY

Term-End Examination

June, 2010

**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

If you feel that none of the options is correct in questions 1 - 10, then write '0' as your answer :

1. Which of these is *not* a valid option for vertical alignment in a cell : 1
 - (a) Top
 - (b) Bottom
 - (c) Justify
 - (d) No alignment

2. To find the cells dependent on the selected cell, the first option to choose is : 1
 - (a) Tools
 - (b) View
 - (c) Format
 - (d) Data

3. Which of the following cell contents can be added to an integer value ? **1**
- (a) Text
 - (b) Date
 - (c) Picture
 - (d) Comments
4. To enter a number as text : **1**
- (a) Precede it by ^
 - (b) Precede it by /
 - (c) End it with ^
 - (d) End it with /
5. Cells in which of the following can be referenced in a formula : **1**
- (a) Same worksheet
 - (b) Different worksheets in same workbook
 - (c) Different workbooks
 - (d) Both (a) and (b)
6. Which of the following will not help to prevent cell contents from being read : **1**
- (a) Hiding the column in which the cell occurs
 - (b) Making the font size very small
 - (c) Making the font colour the same as the background colour
 - (d) None of the above
7. How many worksheets can a workbook have ? **1**
- (a) 3
 - (b) no specific limit
 - (c) 9
 - (d) can be configured by user

8. If x is of type byte with value 10, then $x = x + 5$ has value : **1**
- (a) 15
 - (b) 0
 - (c) will not compile
 - (d) will give a run time error
9. A constructor is called when : **1**
- (a) the object is first used in an expression
 - (b) before the object is created
 - (c) immediately after the object is created
 - (d) The object goes out of scope
10. What is true for a final class ? **1**
- (a) It cannot be abstract
 - (b) It cannot be subclassed
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
11. (a) Write a Java program to convert a decimal number into an array of 0's and 1's that correspond to its binary equivalent. **10**
- (b) How can one set up data validation for a cell in Excel ? Describe the different options that can be configured. **10**

SECTION - B

12. Distinguish between the following : 5x3=15
- (a) method overloading and overriding
 - (b) while and do - while loops
 - (c) break and continue statements
 - (d) finalize () and finally block
 - (e) >> and << operators
13. (a) What is conditional formatting in Excel ? 9
Describe the three options available here.
How would you set up a cell to be in green and underlined if its value is greater than 100 and to be in red with strike through if its value is below 50 ?
- (b) Explain briefly : 6
- (i) Casting
 - (ii) Abstraction
 - (iii) Constructors
14. (a) In chess, the board consists of 64 squares laid out on an 8 x 8 grid, numbered 'a' through 'h' and '1' through 8. A knight is a piece that can move to the opposite corner of a 3 x 2 rectangle. So a knight at position d5 can move to e7, c7, f6, b6, f4, b4, e3, or c3. Write a Java program to take in the position and print the squares that a knight can move on to an empty chessboard. 8
- (b) Describe 4 options for protection of data in Excel, showing with an example each how they work. 7
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