

Section A

[40 marks]

Answer ALL questions in this section.

A1. State whether each of the following statements is valid or invalid. [6]

- (a) Float x = 3.14
- (b) int w = 23
- (c) String name= "Sony";
- (d) public void welcome()
- (e) int data[] = new data{50}
- (f) short w = 4500L

A2. (a) List FOUR examples of relational operator that can be used in a Java program. [4]

(b) Give another FOUR types of operators that can be used in a Java program. [4]

A3. Briefly explain the below symbol, term, or method. [10]

- (a) exception
- (b) parseInt()
- (c) BorderLayout
- (d) Encapsulation
- (e) listener

A4. Give the correct escape sequence for the below action. [4]

- (a) Start on a new line.
- (b) To make a beep sound

A5. List FOUR methods used in a java applet program. [4]

A6. Evaluate each of the following Boolean expressions and state the value of it X, if A = 8, B = 15 and C = 5. [4]

- (a) $X = (A > B \parallel B > C)$
- (b) $X = (A == C \&\& C > A)$
- (c) $X = (C < A \&\& A > B)$
- (d) $X = (B < A \parallel B == C)$

A7. State an appropriate method that could be used to perform each of the following. [4]

- (a) To join more than one String together.
- (b) To compare the contents of two String objects to determine if they are equivalent.
- (c) To determine the size of a String object.
- (d) To convert a String object to a float.

Section B

[60 marks]

Answer ANY TWO questions in this section.

B1.

[30 marks]

- (a) Write a java program which makes use of while loop to display all numbers from 50 to 30 with decremental of 5. [10]
- (b) Explain the reason for placing the break statement at the end of each case in a switch structure. [2]
- (c) Write a Java program using the drawRect() method to draw a rectangle with x and y co-ordinates at 85 and 50 respectively. The width and height of the rectangle should be 45 and 56 respectively. You may assume that Graphics object g is to be used as the argument to the paint() method. [8]
- (d) Write Java statements to accomplish each of the following.
 - (i) Declare a variable d to be of type float. [2]
 - (ii) Declare a method header checkExam that takes an integer w and a float y and returns a float. [2]
 - (iii) Create a button labelled as “Exit” displayed on top of the button. [2]
 - (iv) Declare a character array status that can be used to store 45 elements. [2]
 - (v) Increase the variable w by 50 points. [2]

B2.

[30 marks]

- (a) Identify the error in each of the following program segments and explain how the error can be corrected.

(i) char code;
 if (code == "B")
 System.out.println("Comparison."); [4]

(ii) x = 5;
 while (x >= 1);
 {
 System.out.println(x);
 x = x - 1;
 } [4]

- (b) Use your example explain the purpose of using length attribute. [4]

- (c) Draw a segment of a flowchart to illustrate each of the following structures.

(i) A selection within while loop [4]

(ii) A do while within for loop [4]

STRICTLY CONFIDENTIAL
C1022/CS153/CPG101 - August 2012 - QP

- (d) Write a program to ask the user to enter a person age. It will display the correct message based on the conditions stated below. [10]

Enter your age

56

Your bonus is 300

condition	message
Age above 65	Bonus is 500
Age between 55 and 64	Bonus is 200
Age below 55	Bonus is 100

[30 marks]

- ```
if (level == 'A' || level == 'a')
 System.out.println("Advance Level");
else
 if (level == 'O' || level == 'o')
 System.out.println("Ordinary Level");
 else
 System.out.println("N Level");
```

Page 6 of 6