

Section A

[40 marks]

Answer ALL questions in this section.

A1. (a) Briefly explain what access specifier is. [2]

(b) State type of access specifier which can only be accessed by members of its own class. [2]

A2. State two examples of reference data type used in Java programming. [2]

A3. State whether each of the following statements is valid or invalid. [5]

(a) `int number = "21";`

(b) `char code = 's';`

(c) `float money = 34.56;`

(d) `boolean if = true;`

(e) `byte byteno = 18;`

A4. State three types of identifiers you can declare inside a java program. [3]

A5. Identify the errors found inside the codes given below. [4]

```
public static void calculate(int x, y)
{
    sum = x+ y;
    return total;
}
```

A6. Write a Java statement to accomplish each of the following.

- (a) Test if the value of the variable age is less than 18. If it is, print “you are under age”. [2]
- (b) Declare a method header attackEnemy that takes two parameters b and c of float type and return a boolean value. [2]
- (c) Increment the variable total by 20. [2]
- (d) Declare a Button quit with the caption of “exit”. [2]

A7. Rewrite the following codes using switch statements. [10]

```
if( code == 'E' || code == 'e')
    extrapoint=4;
else
if( code == 'N' || code == 'n')
    extrapoint=2;
else
    extrapoint=0;
```

A8. State four types of operators can be found in Java. [4]

Section B

[60 marks]

Answer ANY TWO questions in this section.

B1. **[30 marks]**

- (a) Write a java program which makes use of do while structure to display numbers downward from 20 to 4. [8]

- (b) Briefly explain what endless loop is. You need to give an example to illustrate it. [6]

- (c) Write a java program which makes use of for loop structure to display odd numbers upward from 1 to 45. [8]

- (d)
 - (i) Briefly explain what a method overloading is. [2]

 - (ii) Which object oriented feature will cover this overloading method? [2]

 - (iii) Write java codes to show the method overloading. [4]

B2. **[30 marks]**

- (a) Briefly explain four methods found inside the applet. [8]

- (b) List and explain any three attributes of <applet> tag. [6]

- (c) List and explain any three types of layout manager used in a Java program. [6]

- (d) Write a java applet program to draw a rectangle with x and y co-ordinates at 50 and 65 respectively. The width and length of the rectangle should be 30 and 60. Set the background to blue, and the rectangle must be in yellow colour. [10]

- B3.** **[30 marks]**
- (a) List all the symbols found inside a flowchart. [6]
- (b) List two key words in java which can be used to implement selection. [2]
- (c) State the appropriate method to perform each of the following tasks. [4]
- (i) Convert a String to a integer.
- (ii) Convert a character to upper case.
- (iii) To join more than one String together.
- (iv) Comparing the equivalence of String objects.
- (d) Briefly explain the difference between the length attribute and the length() method and give an example of each to show how it is used in a Java program. [4]
- (e) (i) Declare an array number to store up to 100 integers. [2]
- (ii) Make use of for loop to display any mark inside the test array come with values above 55 points. [6]
- (f) Briefly explain the purpose of using block comment. [2]
- (g) State the proper separator to do the below function.
- (i) To separate blocks of code [2]
- (ii) To separate a list of values or variables [2]

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