

Section A

[40 marks]

Answer ALL questions in this section.

- A1. List FOUR data types that belong to integer category. [4]
- A2. Write a Java statement to accomplish each of the following:
- (a) Test if the value of the variable balance is less than 20. If it is, print “minimum is \$20”. [2]
 - (b) Declare a variable h of Boolean data type. [2]
 - (c) Increment the variable data by 5. [2]
 - (d) Declare a Button x with the caption of “Go in”. [2]
- A3. State THREE types of identifier you can declare inside a Java program. [3]
- A4. State THREE types of comments that can be used in Java language, and give the symbols. [6]
- A5. Given that the value of X is 6 and Y is 10, evaluate the following logical expressions and state the value of Z: [6]
- (a) $Z = X + Y * 3$
 - (b) $Z = X / 2 - Y * 5$
 - (c) $Z = X \% 4$
 - (d) $Z = (X < 9) \&\& (Y \geq 6)$
 - (e) $Z = !(X == 7)$
 - (f) $Z = (X \geq 11) \parallel (Y > 43)$
- A6. Explain the difference between the Integer and int. [4]

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- A7. State whether each of the following statements is valid or invalid. [5]
- (a) `int x = "43";`
 - (b) `char y = "d";`
 - (c) `float amount = 23.78;`
 - (d) `boolean switch = true;`
 - (e) `byte bytenumber = 12;`
- A8. Declare the following methods:
- (a) a method `sms` that accepts a String `A` and an integer `B`. [2]
 - (b) a method `process` that accepts 2 integers `F` and `G` and return a value of an integer type. [2]

Section B

[60 marks]

Answer ANY TWO questions in this section.

B1.

[30 marks]

- (a) (i) Declare an array weight to store 120 floating point. [3]
- (ii) Write Java codes to display any value inside the weight array below 90. [7]
- (b) (i) Name the THREE constructs in Java programming. [3]
- (ii) Show by drawing a flowchart to show each of the THREE constructs. [6]
- (c) Write a Java program to make use of nested for loop to produce the output given below. [11]

Number Series

=====

1	1
3	1 2 3
5	1 2 3 4 5

B2.

[30 marks]

- (a) Write a Java program which make use of do..while structure to display numbers downward from 50 to 10. [10]
- (b) Rewrite the following codes into switch statements. [10]
- ```
if(c == 'A')
z=2;
else
if(c == 'B' || c== 'D')
z=4;
else
z=6;
```
- (c) For each of the following languages below, state the correct generation it belongs to:
- (i) C programming
  - (ii) Assembly language
  - (iii) Structured Query Language
  - (iv) Machine language
  - (v) Java
- [5]
- (d) Give FIVE types of operators used in Java programming. [5]

**B3.** **[30 marks]**

- (a) Explain the FOUR methods found inside the applet. [8]
- (b) List and explain any THREE attributes of Applet tag. [6]
- (c) What are the THREE types of layout manager found in a Java program? [3]
- (d) You are asked to write a Java applet program to draw a rectangle with x and y co-ordinates at 20 and 200 respectively. The width and length of the rectangle should be 150 and 300. Set the background to red and the rectangle must be in blue colour. [13]

**-END OF PAPER-**