

Section A

[40 marks]

Answer ALL questions in this section.

A1. Write Java statements to accomplish each of the following:

- (a) Declare the variables c, and weight to be of float type. [2]
- (b) Prompt the user to enter a mark. You need to use a Label object to store the message. Then you need to insert the label on the applet. [3]
- (c) To display a message "expensive" if the price is above 5000. [3]
- (d) Declare a method header checkEmail that receives a String argument, and returns a character value. [2]

A2. Complete the following sentences with an appropriate answer. [10]

- (a) && belongs to _____ type of operator.
- (b) A switch statement belongs to _____ structure.
- (c) Inside a function you need to use a _____ statement when you want it to return a value.
- (d) A symbol of // is used to make a _____.
- (e) The _____ method is used to insert GUI components to an applet.
- (f) An object oriented combine methods, and data together is known as _____.

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- (g) Inside Applet, we can use a method _____ to draw a circle into an applet.
- (h) A series of characters appears within a pair of quotation is known as _____.
- (i) The _____ is used to represent the size of an array.
- (j) Tabs, and newline typed by the program inside the editor is known as _____ characters.

A3. Given the following code below, state the output generated by this code. [5]

```
int y;  
for (y = 1; y <= 10; ++ (++ y))  
System.out.print("\t" + (y*3));
```

A4. Identify an appropriate data type for each of the following data items: [5]

- (a) purchase amount
- (b) number of student
- (c) enter an option Y or M
- (d) address of a house
- (e) date of birth(dd/mm/yy)

A5. You are required to rewrite below code under switch case statements. [10]

```
if(code == 'P')  
    price=20;  
else  
if(code == 'N' || code == 'M')  
    price=40;  
else  
    price=-1;
```

Section B

[60 marks]

Answer ANY TWO questions in this section.

B1.

[30 marks]

- (a) For each of the following, write a java statement which makes use of appropriate String methods to perform the given task stated below.
- (i) Compare the string in x to the string in y for equality of values. [2]
- (ii) Append the string "welcome" to the string in b. [2]
- (b) Write a java program to prompt user to enter a book title. Inside this program you need to initialise an array book_list with six book titles. You are supposed to make use of linear search to search whether the book title exists inside the array book_list. If a particular book title exists inside the array book list, then it will display "Book title exists". If the book title never exists inside the array then it will display "No such Book title". [20]
- (c) Describe TWO steps involved inside a recursive method. [4]
- (d) Explain what is internal sorting. [2]

B2.

[30 marks]

- (a) Write a Java program to print integers from 50 to 200 using a do..while loop with the interval of 4. [10]
- (b) Evaluate the following arithmetic expressions. [6]
- (i) $23\%4$
- (ii) $8-3*4$
- (iii) $5+3/2*5/3+4-2$
- (iv) $37/2$
- (v) $64\%9+2.3-1.2$
- (vi) $23-5/2*8+12\%5$
- (c) Write a java program to prompt user to enter purchase amount. If the amount is in between 2300.5 and 5200.3 then it will display the message "discount given is 10%" otherwise it will display the message "no discount will be given". [14]

B3.

[30 marks]

- (a) State which method found in java applet serves to remove resources once the applet execution terminated. [1]
- (b)
 - (i) Which layout in java applet is used to arrange components in rows, and columns. [1]
 - (ii) State other two layouts found in java applet. [2]
- (c) Give THREE examples of containers. [3]
- (d) Write java statement to do the following task.
 - (i) Declare a button log with the caption of "check in" on the button surface. [2]
 - (ii) Declare a text field id with the size of 20 characters width. [2]
- (e) Write a java applet program to draw a rectangle with x, and y coordinates at 45, and 30. The width is 300, and height is 145. The background color of the applet is blue. The rectangle will appear in yellow. [11]
- (f) Write appropriate html codes to activate the java applet written in part (e). [6]
- (g) State methods used to get images, and display images on the screen. [2]

-END OF PAPER-