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IT201

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Enrol. No. .....

END SEMESTER EXAMINATION : APR.-MAY, 2017

JAVA PROGRAMMING

Time : 3 Hrs. *Maximum Marks : 70*

Note: ***Attempt questions from all sections as directed. Use of Calculator is allowed.***

SECTION – A (30 Marks)

Attempt any **five** *questions out of* **six**. *Each question carries* **06** *marks.*

1. Write a program in Java which enters five numbers in an array using command line arguments and print sum and average of the numbers.

2. Write short notes on the following :

   (a) Static variable Vs. static methods (3)

   (b) List Box vs Combo Box (3)

3. (a) Demonstrate the working of nested try blocks with suitable example. (3)

P.T.O.

(b) Explain charAt( ) and substring( ) methods of string class with examples. (3)

4. What are the benefits of using packages ? Write down the steps in creating a package and using it in a Java program with an example.

5. Define an interface using JAVA that contains a method to calculate the perimeter of an object. Define two classes circle and Rectangle with suitable fields and methods. Implement the interface "perimeter" in these classes. Write the appropriate main( ) method to create object of each class and test all the methods.

6. Describe in detail about synchronization in threads. Write a program to demonstrate the use of synchronization.

SECTION – B (20 Marks)

Attempt any **two** *questions out of* **three**.
Each question carries **10** *marks.*

7. (a) Define Exception. Differentiate between throw and throws. (5)

(b) Differentiate between Flow layout and Border layout. (5)

8. (a) Describe the different forms of multiple inheritance in Java language. (5)

(b) Write a program to copy the content of one text file into another. The program accepts the name of the source file and the destination file from command line. For example, to copy a file called FIRST.TXT to a file called SECOND.TXT, use the following command line: Java CopyFile FIRST.TXT SECOND.TXT. (5)

9. (a) Differentiate between Applet and Application. Draw the life cycle of an applet. (5)

(b) Define Event, Event Source and Event Listener. How delegation event model works ? Explain. (5)

SECTION – C (20 Marks)

(Compulsory)

10. (a) Write a program in Java to create a class 'Box' which contains three data members for holding width, height and length of box and two methods 'area' and 'volume' to calculate and return the area and volume of box. Create another class named 'BoxDemo' which uses Box class.

P.T.O.

(i) Demonstrate the use of overloaded constructors.

(ii) Calculate the area and volume of box. (10)

(b) Design and implement an applet that accepts two integer numbers and displays the sum and difference of these numbers. (10)