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322553(22)

B. E. (Fifth Semester) Examination, April-May 2019

(New Scheme)

(CSE Branch)

PROGRAMMING in JAVA

Time Allowed : Three hours

Maximum Marks. : 80

Minimum Pass Marks : 28

Note : Attempt all questions. All questions have four parts. Part (a) is compulsory of 2 marks. Attempt any two parts from part (b), (c) and (d) of 7 marks each.

Unit - I

1. (a) What is Object Oriented Programming?   2

322553(22)   PTO

[2]

(b) Write a program in Java to generate the Fibonacci series taking into consideration the following constraints :   7

   (i) Create a class FIBO

   (ii) Class FIBO should have a data member n, that will hold the number of terms to be displayed in the Fibonacci series.

   (iii) Using the constructor of class FIBO fill the value of n from the user during runtime.

   (iv) A member method named "series-generate" should be used to generate and display the Fibonacci series.

(c) Write a Java program that multiplies two 3×3 matrices.   7

(d) Describe different bitwise operators and their uses with proper example.   7

Unit - II

2. (a) Compare the concept of Interface and Class in Java. 2

(b) With the help of a Java program, explain the concept of "package" i.e. how packages can be created. imported and used.   7

322553(22)

(c) Implement using Java code your own exception class that can be used to prevent users from entering non-alphabets in their names. Implement the code in such a manner that it becomes a user-defined checked exception. Develop the program and explain the output.   7

(d) Explain the use try, catch, throws and finally with proper example.   7

Unit - III

3. (a) Define a thread.   2

(b) Write a Java program that has two threads and make them run in an alternate way using wait( ) and notify( ) methods. Develop the program and explain the output. http://www.csvtuonline.com   7

(c) Describe the Java I/O Classes and Interfaces.   7

(d) Explain various Character Extraction methods with suitable example.   7

Unit - IV

4. (a) Describe URL format.   2

(b) Explain init( ), start( ), stop( ), destroy( ) and paint( ) methods of Applet class. How can you pass parameters to Applet?   7

(c) Explain the steps that are necessary to create an application using Socket and Server socket that can be used to communicate between two different computer systems through network.   7

(d) Write a program in Java to create an application that manager, username and password. The new users should be able to register and existing users should be able to login. The database should be maintained in Oracle. Explain how the output is achieved.   7

Unit - V

5. (a) Compare AWT and swing.   2

(b) Write a GUI program in Java using AWT components where there are two buttons on a panel. Initially only Button 1 is visible and Button 2 is invisible. When Button 1 is clicked then Button 2 gets visible and Button 1 gets invisible and vice versa. Explain how the output is achieved?   7

(c) Explain the steps that are necessary to create an RMI application that can be used to communicate between different computer system.   7

(d) Explain Panel, Frame, Canvas, Window and Container. What is event handling?   7