22412

12223

3 Hours / 70 Marks   Seat No.

Marks

1.   **Attempt any FIVE of the following :**   **10**

a) State any four relational operators and their use.

b) Enlist access specifiers in Java.

c) Explain constructor with suitable example.

d) List the types of inheritance which is supported by java.

e) Define thread. Mention 2 ways to create thread.

f) Distinguish between Java applications and Java Applet (Any two points)

g) Draw the hierarchy of stream classes.

[2]

Marks

2. **Attempt any THREE of the following :** **12**

a) Write a program to check whether the given number is prime or not.

b) Define a class employee with data members 'empid', 'name' and 'salary'. Accept data for three objects and display it.

c) Describe Life cycle of thread with suitable diagram.

d) Write a program to read a file (Use character stream)

3. **Attempt any THREE of the following :** **12**

a) Write a program to find reverse of a number.

b) State the use of final keyword with respect to inheritance.

c) Give the usage of following methods

   i)   drawPolygon ( )

   ii)   DrawOval ( )

   iii) drawLine ( )

   iv) drawArc ( )

d) Write any four methods of file class with their use.

4. **Attempt any THREE of the following :** **12**

a) Write all primitive data types available in Java with their storage sizes in bytes.

b) Write a program to add 2 integer, 2 string and 2 float values in a vector. Remove the element specified by the user and display the list.

c) Develop a program to create a class 'Book' having data members 'author', 'title' and 'price'. Derive a class 'BookInfo' having data member 'stockposition' and method to initialize and display the information for three objects.

d) Mention the steps to add applet to HTML file. Give sample code.

e) Write a program to copy contents of one file to another.

Marks

5. Attempt any TWO of the following :   **12**

a) Compare array and vector. Explain elementAT( ) and addElement( ) methods.

b) Write a program to create a class 'salary' with data members 'empid', 'name' and 'basicsalary'. Write an interface 'Allowance' which stores rates of calculation for da as 90% of basic salary, hra as 10% of basic salary and pf as 8.33% of basic salary. Include a method to calculate net salary and display it.

c) Define an exception called 'No Match Exception' that is thrown when the passward accepted is not equal to 'MSBTE'. Write the program.

6. Attempt any TWO of the following :   **12**

a) Write a program to check whether the string provided by the user is patindrome or not.

b) Define thread priority ? Write default priority values and the methods to set and change them.

c) Design an applet to perform all arithmetic operations and display the result by using labels. textboxes and buttons.

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