# 17515

# 21222 **3 Hours / 100 Marks** Seat No. 15 minutes extra for each hour Instructions – (1) All Questions are *Compulsory*. (2) Illustrate your answers with neat sketches wherever necessary. (3) Figures to the right indicate full marks. (4) Assume suitable data, if necessary. (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall. Marks 12 1. a) Attempt any THREE of the following: Describe various bitwise operator with example. (i) (ii) Write a program to copy contents of one file to another using character stream class. (iii) Explain typecasting with suitable example. (iv) Distinguish between suspend() and sleep(). b) Attempt any ONE of the following: 6 Explain following methods of vector class (i) (1) elementAt () (2) RemoveElement () (3) InsertElementAt () (4) addElement(.)

(ii) What is interface ? What is its needs with suitable example explain the use of interface ?

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# 2. Attempt any <u>TWO</u> of the following:

- a) Write a program to create a class account having variable accno, accname and balance. Define deposit () and withdraw () methods. Create one object of class and perform the operation.
- b) Explain how to create multilevel hierarchy with example.
- c) Design an applet which display a triangle filled with red color and message as the triangle in the blue below it.

#### 3. Attempt any FOUR of the following:

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- a) Define a class employee with data member as empid, name and salary. Accept data for five objects and print it.
- b) Justify the statement Java is platform independent.
- c) Write any two method of file and file input stream class each.
- d) Differentiate between java applet and application.
- e) Write a program to create a class book having variable title, author and price. Declare the constructor and define two methods one will take input and other will display output. Create array of five object take input and display details of book having highest price.

# 4. a) Attempt any <u>THREE</u> of the following:

- (i) Explain break and continue statement with example.
- (ii) Explain lifecycle of thread along with diagram.
- (iii) Write a program to print reverse of number.
- (iv) Explain all attribute available in applet tag.

# b) Attempt any ONE of the following:

- (i) Explain lifecycle of applet with diagram.
- (ii) Explain the substring() concat() replace() method of string class.

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- a) Write a program to create two thread so one thread will print ascending number where as second thread will print descending number between sequences 1 to 15 numbers.
- b) What are different types of error ? What is the use of throw, throws and finally statement.
- c) Write a program to draw a bar chart for plotting students passing percentage in last 5 years.

# 6. Attempt any FOUR of the following:

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- a) Describe method overloading with example.
- b) Explain serialization with stream class.
- c) Write an applet to accept username in form of parameter and print "Hello <username>"
- d) List any four built in packages in JAVA API along with their use.
- e) Describe ? : (ternary operator) in java with example.

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