



17515

21415

3 Hours/100 Marks

Seat No.

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- Instructions :** (1) **All** questions are **compulsory**.
(2) Answer **each next** main question on a **new** page.
(3) Illustrate your answers with **neat** sketches **wherever** necessary.
(4) Figures to the **right** indicate **full** marks.
(5) Assume **suitable** data, if **necessary**.
(6) **Preferably**, write the answers in **sequential order**.
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MARKS

1. A) Attempt **any three** of the following : **(3×4=12)**
- a) What is JVM ? What is byte code ?
 - b) Write any two methods of file and file input stream class each.
 - c) '?' what this operator is called ? Explain with suitable example.
 - d) Define an exception. How it is handled ?
- B) Attempt **any one** of the following : **(1×6=6)**
- a) Define a class 'employee' with data members empid, name and salary. Accept data for five objects using Array of objects and print it.
 - b) Explain with example how to achieve multiple inheritance with interface.
2. Attempt **any two** of the following : **(2×8=16)**
- a) Define wrapper class. Give the following wrapper class methods with syntax and use :
 - 1) To convert integer number to string.
 - 2) To convert numeric string to integer number.
 - 3) To convert object numbers to primitive numbers using typevalue () method.

P.T.O.



b) Write syntax and example of

1) drawString ()

2) drawRect () ;

3) drawOval ()

4) drawArc ()

c) What is package ? State any four system packages along with their use ?

How to add class to a user defined package ?

3. Attempt **any four** :

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a) Differentiate vector and array with any 4 points.

b) Write a program to accept a number as command line argument and print the number is even or odd.

c) Write a program to copy contents of one file to another file using character stream class.

d) State the use of final keyword w.r.t. a method and the variable with suitable example.

e) Describe following states of applet life cycle :

a) Initialization state.

b) Running state.

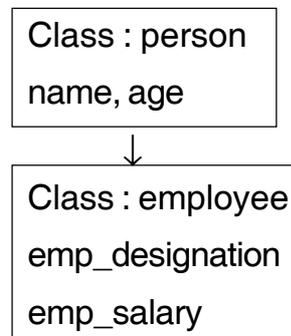
c) Display state.



4. A) Attempt **any three** : **(4×3=12)**
- a) Compare string class and stringBuffer class with any four points.
 - b) Explain thread priority and method to get and set priority values.
 - c) Define a class having one 3 digit number, num as data member, initialize and display reverse of that number.
 - d) Write syntax and function of following methods of Date class :
 - i) getTime ()
 - ii) getDate ()
- B) Attempt **any one** of the following : **(1×6=6)**
- a) Explain following methods of vector class :
 - i) elementAt ()
 - ii) addElement ()
 - iii) removeElement ()
 - b) Explain <PARAM> Tag of applet with suitable example.
5. Attempt **any two** of the following : **(2×8=16)**
- a) Write a program to input name and age of a person and throws an user define exception if entered age is negative.
 - b) With suitable diagram explain life cycle of Thread.
 - c) State the use of font class. Describe any three methods of font class with their syntax and example of each.
6. Attempt **any four** of the following : **(4×4=16)**
- a) Differentiate applet and application with any four points.
 - b) Define JDK. List the tools available in JDK explain any one in detail.



c) Write a program to implement following inheritance :



- d) Write the effect of access specifiers public, private and protected in package.
- e) What are stream classes ? List any two input stream classes from character stream.
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