

# 22412

**12526**

**3 Hours / 70 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) Assume suitable data, if necessary.  
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

1. **Attempt any FIVE of the following :** **10**
- List feature of Java.
  - List different modifiers used in Java Program.
  - Differentiate between string and string buffer. (Any two points)
  - State use of final method and variable.
  - Enlist any four built in exception available in Java.
  - Give example to include a java applet in an HTML page.
  - Write any two methods name and their usage from file Reader class.

P.T.O.

2. **Attempt any THREE of the following :** **12**
- a) Write a program to find largest number from given array using for each loop.
  - b) Define class exam with suitable data members and create array of object (For five objects)
  - c) Explain interface with suitable example.
  - d) Explain try and catch statement in Java.
3. **Attempt any THREE of the following :** **12**
- a) Write a program to find 1's complement representation of the input value.
  - b) Differentiate between class and interface.
  - c) Describe any four graphics class methods used for graphic programming in Java.
  - d) Enlist types of stream classes and describe methods for reading and writing data for each type.
4. **Attempt any THREE of the following :** **12**
- a) Describe scope of variable with suitable example in Java.
  - b) Write a program for parameterized constructor.
  - c) Differentiate between frame and applet.
  - d) Write a program to read content of text file and display them on screen.
  - e) Explain how to create package and import package.

- 5. Attempt any TWO of the following :** **12**
- a) Write a program to create vector of three integer objects and two string object. Insert any new element at position one. Display size of vector.
  - b) Explain method overloading and method overriding in Java with example.
  - c) Write a program to create two threads one thread will display the odd numbers between 1 to 10 and other will display even numbers between 1 to 10 with delay of 500 milliseconds.
- 6. Attempt any TWO of the following :** **12**
- a) Explain what is array ? How to create it with its types.
  - b) Explain following Thread Methods.
    - i) wait( )
    - ii) sleep( )
    - iii) notify( )
    - iv) resume( )
    - v) suspend( )
    - vi) stop( )
  - c) Design an applet to accept user's name and email id and check email id is in valid form or not. Display appropriate message to user after email id validation.
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