

Time: 3 Hours

**FEBRUARY 2014**

Max. Marks: 100

*PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.*

**NOTE:**

- Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.
- Parts of a question should be answered at the same place.

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- Q.1**
- a. What are the differences between C++ and JAVA?
  - b. Write a JAVA program to find the first m numbers of the Fibonacci series.
  - c. What is method overloading in JAVA? Give an example to explain.
  - d. Distinguish between interfaces and abstract classes.
  - e. What is the role of the keyword “throw” & “throws” in exception handling? What is the difference between checked and unchecked exceptions?
  - f. List the four levels of controlling access to variables, methods and classes in JAVA.
  - g. With an example show how values can be passed to applets? **(7×4)**
- Q.2**
- a. What is type casting in JAVA? Explain its various types with suitable examples. **(9)**
  - b. Write a simple program that finds the largest of two numbers where the two numbers are read from the keyboard. **(9)**
- Q.3**
- a. What is the order of calling constructors in JAVA? **(5)**
  - b. Explain different access specifiers in JAVA? **(5)**
  - c. Explain the following with an example:- **(8)**
    - i. Final data member.
    - ii. Final method.
    - iii. Final class.
    - iv. Final object.
- Q.4**
- a. Why do we use import statement? **(8)**

**Code: CT21****Subject: OOP USING JAVA**

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- b. Write a java program to show how interfaces can be extended in Java? (10)
- Q.5** a. List some common java exceptions and explain. (9)
- b. Give an example of a program in java to show how you can create your own exception classes? (9)
- Q.6** a. What do the following methods do:- (9)
- i) wait( ).
  - ii) notify ( ).
  - iii) notifyAll ( ).
- b. Differentiate between Applications and Applets. (9)
- Q.7** a. Write a JAVA program to create three simple sliders—plain slider, slider with tick marks and a third one with both tick marks and sliders. (9)
- b. Show with an example program how inheritance is supported by beans. (9)