



Name :

Roll No. :

Invigilator's Signature :

CS/M.Sc.(IS)/SEM-2/MI-202/2010

2010

OBJECT TECHNOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

Answer any *five* questions.

1. What is the use of constructor ? How byte code helps the portability of Java ? What are the differences between class variable and instance variable ? Explain the short circuit evaluation of an expression with logical AND operator (&&).
2. Differentiate method overloading and method overriding. Write a program to accept a number as command line argument and check whether it is even or odd.
3. What is the advantage of package ? Describe the visibility control of the class members by the four access specifiers in packages.

2 + 2 + 3 +

Predict the output :

```
public class check {  
    public static void main ( String args [ ] ) {  
        int arr [ ] = { 4, 8, 16 };  
        int i = 1;  
        arr [ ++i ] = --i;  
        System.out.println(arr[ 0 ]+ arr [ 1 ]+ arr[ 2 ]);  
    }  
}
```

3 + 5 + 2



4. What is Exception and Error in Java ? How can we handle exception ? Explain the life cycle of applet. $2 + 3 + 5$
5. What is multi threading ? What is the use of thread priority ? Why main thread is important in multi threading ? Write a Java program to create child thread using Runnable interface. $2 + 1 + 2 + 5$
6. What is the use of 'final' key word in java program ? What is 'finalize' method in Java ? Write a java program to show how multilevel inheritance is possible in JAVA ? $3 + 2 + 5$
7. What is abstract class ? What are the differences between abstract class and interface. Write a java program to show how one interface can inherit another interface. $2 + 3 + 5$

GROUP - B

Answer any *two* of the following.

8. What is UML ? Draw the activity diagram for the ATM system. Take necessary swim lanes, states and activities. Use condition checking where ever required. $3 + 7$
9. Explain the different types of views. Draw the sequence diagram for opening an account and for depositing and withdrawing of money in Banking system. $5 + 5$
10. What is implementation diagram ? Draw the state chart diagram for the Student Course Registration system. $5 + 5$
