Name : ……………………………………………………

Roll No. : …………………………………………………

Invigilator's Signature : ……………………………………

CS/BCA/SEM-6/BCAE-602B/2010

2010

OBJECT ORIENTED PROGRAMMING WITH JAVA

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
(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :   10 × 1 = 10

    i)   Which of these is known as short-circuit and operator ?

       a)   &&   b)   &

       c)   ? &   d)   None of these.

    ii)   A constructor can be inherited using the keyword ?

       a)   Final   b)   Static

       c)   Super   d)   None of these.

    iii)   int *i* = 2;

       System.out.println("welcome"+1+2);

       The output is :

       a)   welcome3   b)   welcome12

       c)   compiler error   d)   none of these.

iv) To inherit an interface from a class we use the keyword
....

a) extends   b) implements

c) both (a) & (b)   d) none of these.

v) In java applet, 'Stop ( )' method can be invoked for a thread

a) once   b) twice

c) compiler error   d) not at all.

vi) Dynamic method dispatcher is used for

a) resolving method overriding

b) resolving multilevel inheritance

c) resolving multiple inheritance anomaly

d) none of these.

vii) JVM stands for

a) Java Virtual Machine

b) Java Visual Machine

c) Java Vision Machine

d) None of these.

viii) Each time we shift a value to the right using '>>' operator it divides the value by .... ?

a) 4   b) 2

c) 8   d) None of these.

ix) Which of the following statement is true regarding constructors ?

    a) All cases must be define as a constructor

    b) A constructor can be defined private

    c) A constructor can return a value

    d) A constructor must initialize all the fields of a class.

x) int $x = 2$;

    for $(x = 0; x < 5; x++)$

    System.out.println(x);

    The output is

    a) 0 1 2 3 4   b) 1 2 3 4

    c) 2 3 4   d) none of these.

GROUP – B
(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. What are the differences between run time polymorphism & compile time polymorphism ?   5

3. What do you mean by object oriented programming ? How it differs from Structure Oriented Programming ?   2 + 3

4. What are the differences between method overloading and method overriding ?   5

5. What is Garbage collection ? What is static variable ? Give example for both. $1\frac{1}{2} + 1\frac{1}{2} + 2$

6. What is synchronization ? When is it used ?   3 + 2

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GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. a) What are the features of Java language ? Describe.

   b) What do you mean by command line argument ?

   c) What do you mean by subclass constructor method ?

   5 + 5 + 5

8. a) Describe the complete life cycle of a thread.

   b) Explain the methods by which you can block a thread.

   c) Describe Inter-thread communication.

   d) What is thread synchronization ? 4 + 4 + 4 + 3

9. a) What is applet ?

   b) Describe applet life cycle.

   c) What is local applet ?

   d) What are the differences between Java application & Java applet ?

   e) What are the attributes of applet tag ? 2 + 4 + 2 + 5 + 2

10. a) What is an exception ? Explain with an example, how exceptions are handled in Java.

    b) What is multithreading ? Explain two advantages of multithreaded programs. Write a program in Java to explain how different priorities can be assigned to different threads. (2 + 4) + (2 + 2 + 5)

11. a) What is a package ? Explain the different access controls for packages in Java.

    b) What is Unicode ? Explain the advantage of using Unicode.

    c) Explain operators with reference to Java. Explain two dimensional array with example. (2 + 3) + 2 + (3 + 5)

6137 4