CS/B...

2013

OBJECT ORIENTED PROGRAMMING WITH JAVA

Full Marks : 70

Time Allotted : 3 Hours

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 : $10 \times 1 = 10$

    i)   JVM stands for
         a) Java Virtual Machine   b)   Java Vision Machine
         c)   Java Visual Machine   d)   none of these.

    ii) ```
         String str ="ABCD";
         System.out.println (str.charAt(2));
         ```
         The output is
         a)  C                      b)  2
         c)  exception occurs       d)  none of these.

    iii) Dynamic method dispatcher is used full for
         a)  resolving method overriding
         b)  resolving multilevel inheritance
         c)  resolving multiple inheritance anomaly
         d)  none of these.

6144                                                    [ Turn over

iv) In Java applet, stop( ) method can be invoked

    a) once                b) twice

    c) many times      d) not at all.

v) Which of the following statements is true rega
constructors ?

    a) All cases must define a constructor

    b) A constructor can be declared private

    c) A constructor can return a value

    d) A constructor must initialize all the fields
class.

vi) What is the return type of read( ) method
InputStream class ?

    a) String           b) Float

    c) Void            d) None of these.

vii) Which of the following JSP expressions are valid ?

    a) <%="Sorry"+"for the"+"break"%>

    b) <%="Sorry"+"for the"+"break";%>

    c) <%="Sorry"%>

    d) <%="Sorry";%>

viii) A class can be converted to a thread by implement
the interface

    a) Thread          b) Runnable.

ix) Which is not allowed in EJB programming ?

    a) Thread Management

    b) Transient Fields

    c) Listening on a Socket.

x) What happens if Database Updation code is written in ejbPassivate( ) method and if this method is called ?

    a) Exception is thrown

    b) Successfully executes the Database Updation code

    c) Compilation error occurs indicating that Database Updation code should not be written in ejbPassivate( )

    d) ejbStore( ) method is called.

## GROUP – B

### ( Short Answer Type Questions )

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

2. Write a program to create a window and set its title with "IETE" using AWT.

3. How will you call parameterized constructor and overrided method from parent class in sub-class ?

4. Explain object serialization in Java with suitable example.

5. a) In Java, explain how to call a constructor from another.

    b) Indicate the difference between PATH and CLASSPATH.

                            3 + 2

6. a) Can a super class object reference a sub-class object ? Explain.

    b) Illustrate the uses of 'this' and 'super' keywords.

    c) Illustrate the uses of 'integer' and 'Integer' keyword.

                            1 + 2 + 2

## GROUP – C

### ( Long Answer Type Questions )

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

7. a) What are Adapter classes ?
                                      3

    b) What is multithreading ? What are the two different ways to create multithreaded program ?
                                        3

    c) What is the difference among final, finally and finalize ?
                                        3

a class member ?

1

g) What is JAR ? Write few options used with JAR.　　　1

8. a) What is polymorphism ? Differentiate between compile time and runtime polymorphism with the help of complete java program.　　　3 + 3 + 3

b) What is the role of garbage collection ?　　　3

c) What are packages ? Explain the steps to create packages.　　　3

9. a) What is the difference between character based and byte based IO streams ? Discuss different types of character and byte based streams.　　　3 + 6

b) Write a program to input three integers through keyboard and print the largest among them.　　　6

10. a) Describe the different stages in the life-cycle of an applet.

b) Distinguish between init( ) and start( ) methods.

c) What is synchronization ? When is it used ?

d) Give an example where interface can be used to support multiple inheritances.　　　4 + 3 + 3 +

11. Write short notes on any *three* of the following :　　　3 ×

a) Abstract class

b) Exception handling

c) Interface

d) Applet viewer

e) JVM.

==============