15CS45

USN

Object Oriented Concepts

Time: 3 hrs.   Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Differentiate between object oriented and procedure oriented programming concepts.
                                                                                              (04 Marks)
   b. What is function overloading? Write a C++ program to define overloaded functions.
                                                                                              (06 Marks)
   c. Define friend function. What are the rules to be used while using friend function? Illustrate with an example.   **(06 Marks)**

OR

2 a. Define reference variable, scope resolution operator and name space.   **(03 Marks)**
   b. Explain static member functions with suitable example.   **(05 Marks)**
   c. What are constructors? Explain different types of constructors.   **(08 Marks)**

Module-2

3 a. List and explain java buzz words.   **(08 Marks)**
   b. Explain the structure of java program with an example.   **(06 Marks)**
   c. Explain with example,
        (i)   Short circuit logic operator.   (ii)   For each.   **(02 Marks)**

OR

4 a. Define Byte code. How does it help java programs to achieve portability?   **(04 Marks)**
   b. Explain the different ways of array declaration with syntax.   **(07 Marks)**
   c. Explain continue and break statements in java.   **(05 Marks)**

Module-3

5 a. Explain finalize ( ) method in java with suitable example.   **(04 Marks)**
   b. Define inheritance, how super key is used in inheritance. Explain two general forms for super key.   **(06 Marks)**
   c. Explain the concept of method overriding in Java with example.   **(06 Marks)**

OR

6 a. What is an exception? Explain different exception handling mechanisms.   **(06 Marks)**
   b. Explain access protection and importing of package in java.   **(05 Marks)**
   c. Write a java program to implement stack operations.   **(05 Marks)**

Module-4

7 a. Explain the concept of thread and write a program in java to create thread by using implementing runnable.   **(06 Marks)**
   b. Briefly explain the role of,
        (i)   Window event class.
        (ii)   Mouse Event class.   **(06 Marks)**
   c. What is an adapter class? Demonstrate with suitable example.   **(04 Marks)**

OR

8 a. What is synchronization? Explain the producer consumer problem with a program. **(06 Marks)**

    b. What is an event? Explain the delegation event model in java. **(04 Marks)**

    c. What is an inner class? Illustrate with a java program. How to define and use an inner class?

      (06 Marks)

Module-5

9 a. What is an applet? Explain different stages in life cycle of applet. **(06 Marks)**

    b. Create swing applet that has two buttons name Jbutton1 and Jbutton2 when either of the buttons pressed it should display "Jbutton1 was pressed" and "Jbutton2 was pressed" respectively. **(06 Marks)**

    c. Explain the following with an example:

        (i)   Jlabel

        (ii)   imageicon   **(04 Marks)**

OR

10 a. Explain the concept of getDocumentBase ( ) and geCodeBase ( ) with examples. **(06 Marks)**

     b. What is swing? Explain important features of swing. **(04 Marks)**

     c. Explain the following with an example:

        (i)   JScrollPane.

        (ii)   JTabbedPane.

        (iii) JComboBox   **(06 Marks)**

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