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15CS45

Fourth Semester B.E. Degree Examination, Jan./Feb.2021
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. Explain features of OOPs.   (06 Marks)
   b. Define class and object with syntax of class.   (04 Marks)
   c. Define function overloading? Explain with an example.   (06 Marks)

OR

2 a. Define constructor. Write a program demonstrating the use of constructors and destructor.
                                                                                             (06 Marks)
   b. Describe the nested classes with examples.   (04 Marks)
   c. Write C++ program to find smallest of 3 numbers.   (06 Marks)

Module-2

3 a. List and explain the Java Buzzwords.   (08 Marks)
   b. Discuss Bitwise and relational operators in Java.   (02 Marks)
   c. Write a Java program to find largest of 3 numbers.   (06 Marks)

OR

4 a. Discuss Java's iteration statements for, while and do-while with example.   (06 Marks)
   b. Explain the concept of arrays in Java with examples. Write a Java program that creates and
      initializes a five integer elements array. Find the sum and average of its values.   (08 Marks)
   c. Define Bytecode.   (02 Marks)

Module-3

5 a. With examples, give two uses of super.   (08 Marks)
   b. Discuss about nested try statements and how such program may be executed.   (08 Marks)

OR

6 a. Explain Java's built in exceptions.   (08 Marks)
   b. Write general form of interface. How interfaces can be extended and implemented.
                                                                                             (08 Marks)

Module-4

7 a. What is multithreading? Explain with an example the implementation of multithreading in
      java.   (08 Marks)
   b. What is the need of synchronization? Explain with an example how synchronization is
      implemented in java.   (08 Marks)

OR

8 a. Define adapter class. Explain the significance of adapter class with example.   (08 Marks)
   b. Explain inner class with example.   (04 Marks)
   c. Explain the mechanism of Delegation Event model.   (04 Marks)

Module-5

9   a.   What are the two types of applets? Explain the skeleton of an applet with five methods init( ), start( ), stop( ), destroy( ) and paint ( ) methods.   **(08 Marks)**
    b.   Write syntax of APPLET tag with possible attributes and explain.   **(04 Marks)**
    c.   Explain parameter passing to applet with an example.   **(04 Marks)**

OR

10 a.   Define Tree Write steps to create JTree. Also write a program to demonstrate the same.   **(08 Marks)**
    b.   Explain the components and containers used in swings.   **(03 Marks)**
    c.   Write steps to create JTable, also write a program to demonstrate the same.   **(05 Marks)**

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