CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐

18CS45

Fourth Semester B.E. Degree Examination, Feb./Mar.2022
Object Oriented Concepts

Time: 3 hrs.

Max. Marks: 100

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

Module-1

1   a. Explain the various features of OOC. **(08 Marks)**
    b. What is data abstraction? How it is implemented in C++. **(06 Marks)**
    c. With the example C++ program, explain Reference variables. **(06 Marks)**

OR

2   a. Explain function prototyping with example for function parameter passing. **(06 Marks)**
    b. Why Friend function is required, write a program to add two numbers using Friend Function. **(08 Marks)**
    c. What is static member of a class? Write a C++ program to count the number of objects created. **(06 Marks)**

Module-2

3   a. What is constructor? List the different types of constructors and explain the default constructor with example. **(08 Marks)**
    b. Discuss the label break and continue with example. **(05 Marks)**
    c. Explain the concepts of arrays in Java with examples of single Dimension and Two Dimension arrays. **(07 Marks)**

OR

4   a. List and explain Java buzz words. **(08 Marks)**
    b. What is nested class? Explain how nested class can be defined as private of enclosing class with example. **(05 Marks)**
    c. List and explain different iteration. **(07 Marks)**

Module-3

5   a. Compare and contrast method overloading and method overriding with examples. **(08 Marks)**
    b. What are the uses of Inheritance? Explain inheriting data members and method with a program. **(06 Marks)**
    c. What is exception? How Java supports exception handling mechanism give example. **(06 Marks)**

OR

6   a. When constructors are called in the class hierarchy? **(06 Marks)**
    b. Explain garbage collector. **(08 Marks)**
    c. Write a short notes on "Super keyword with example" **(06 Marks)**

Module-4

7 a. Define package. What are the steps involved in creating user defined package with an example. (08 Marks)

b. Describe thread priority. How to assign and get the thread priority. (06 Marks)

c. Explain the following, with syntax and example:
(i) wait( ) (ii) notify( ) (iii) notifyAll( ). (06 Marks)

OR

8 a. Explain changing state of the thread. (08 Marks)

b. Explain synchronization using synchronized methods. (08 Marks)

c. Explain isAlive( ) and join( ) methods. (04 Marks)

Module-5

9 a. Explain any 8 event listener inter-faces with syntax. (08 Marks)

b. Explain different methods of applet. (06 Marks)

c. Explain the HTML applet with syntax and example. (06 Marks)

OR

10 a. Explain with syntax:
(i)   JLabel
(ii) JTextField
(iii) JButton
(iv) JCheckBox
(v)   JComboBox (10 Marks)

b. Explain a simple swing application with program. (10 Marks)

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