Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

USN : ☐☐☐☐☐☐☐☐☐☐

Fourth Semester B.E. Degree Examination

Object Oriented Concepts

Time: 03 Hrs   Max. Marks:100

Note: Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**

Module - 1

1 a. How do namespaces helps in preventing pollution of the global namespace.   (05 marks)

  b. List and explain any four features of object oriented program   (05 marks)

  c. Explain the following terms

   i) Access specifiers

   ii) Polymorphism   (10 marks)

OR

2 a. Can you overload constructor and destructor? Justify with suitable example.   (05 marks)

  b. Define friend function. Explain how one can bridge two classes using friend
    Function. Write a C++ program to find the sum of two numbers using friend
    Function. Assume two variables are present in two different class.   (10 marks)

  c. What is a reference variable? Explain. Also write a program in C++ to swap
    two variables of type complex and display the values before and
    after swapping.   (05 marks)

Module - 2

3 a. How " compile once and run anywhere" is implemented in Java, explain.   (05 marks)

  b. Write a Java program to sum only first five elements of the array using
    for each loop.   (05 marks)

  c. Explain the operations of the following operators with example.

   i) %   ii) >>> iii) &&   iv) + (concatenation operator) v) || (10 marks)

OR

4 a. List and explain Java buzzwords.   (10 marks)

  b. What is type casting? Illustrate with an example, what is meant by automatic
    type casting.   (05 marks)

  c. How to declare and accept values for two dimensional arrays in Java.
    Explain with a suitable example.   (05 marks)

Module - 3

5 a. Describe the various levels of access protections available for packages and
their implications with suitable examples. (10 marks)

b. Compare and contrast method overloading and method overriding with
suitable example. (06 marks)

c. Explain with example, when constructors are called in class hierarchy. (04 marks)

OR

6 a. Explain usage of super keyword in Java with suitable examples. (05 marks)

b. Define Exception. Write a program which contains one method which will
throw IllegalAccessException and use proper exception handlers so that
exception should be printed in the calling function. (10 marks)

c. Define and explain different types of inheritance in Java. (05 marks)

7 a. What is a thread? Explain different ways of creating a thread. (05 marks)

b. With syntax explain the use of isAlive( ) and Join( ) methods. (05 marks)

c. How synchronization can be achieved between threads in Java?
Explain with an example. (10 marks)

OR

8 a. Explain the role of synchronization in producer and consumer problem. (10 marks)

b. What are the differences between suspending and stopping the threads? (05 marks)

c. Explain the adaptor class with an example. (05 marks)

9 a. Discuss delegation event model with suitable example. (05 marks)

b. Explain with suitable example inner class (05 marks)

c. Explain JComboBox with example. (05 marks)

OR

10 a. Explain the following with an example for each and syntax.
  i) JLabel
  ii) JTextfield
  iii) JButton
  iv) JComboBox (10 marks)

b. Describe the two keys features of swings. (05 marks)

c. Create swing applet that has two buttons named beta and gamma. When
either of the buttons pressed, it should display "beta pressed" and
"gamma pressed" respectively. (05 marks)