1079
Exam.Code:0917
Sub. Code: 6789

B.E. (Computer Science and Engineering)
Fifth Semester
CS-504: Principles of Programming Languages

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt _five_ questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

    a) What are the objectives of principles of programming language?

    b) Differentiate between compiler and interpreter

    c) What are the imperative languages?

    d) Define methods and objects in C++ language

    e) Mention the components of referencing environment   (5x2)

UNIT – I

II. a) Explain the various phases of compiler with neat and clean block diagram.

    b) Discuss shared data problem? Explain your ideas for solving shared data problem.
    (2x5)

III. a) Discuss public and private inheritance with the help of suitable example.

    b) Describe different methods of passing parameters with example.   (2x5)

IV. a) Discuss polymorphism in object oriented programming and why is it important?

    b) What is an abstract class and when should it be used?   (2x5)

UNIT – II

V. Explain operator overloading and function overloading with help of suitable example.
    (10)

VI. a) Compare C++, Java and Prolog on the basis of various attributes.

    b) Type inference refers to the automatic deduction of the data type. Explain with example.   (2x5)

VII. a) Differentiate between heap storage management and static storage management?

    b) Explain heap storage management and how it can be used in C++?   (2x5)

x-x-x