

Exam.Code:0917
Sub. Code: 6789

1078

**B.E. (Computer Science and Engineering)
Fifth Semester**

CSE-504: Principles of Programming Languages

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Write short note on:-

- a) Abstract Class
- b) Mixed Mode Assignments
- c) SDL resolution in logic programming
- d) Type Checking in C++
- e) Static Storage Management (5x2)

UNIT - I

- II. a) Compare and contrast between the imperative programming and declarative programming languages. (5,5)
- b) Write BNF notation for "for loop" statements. (5,5)
- III. a) What are the advantages of having subtypes? (5,5)
- b) Highlight the properties of concurrent programs. (5,5)
- IV. a) What are the common uses of backtracking in logic programming? (5,5)
- b) What do you mean by short cut evaluation? Explain briefly. (5,5)

UNIT - II

- V. a) How functions are considered in functional programming? (5,5)
- b) What is the difference between first order and higher order functions? (5,5)
- VI. a) Explain how polymorphic data types help to implement the parametric polymorphism? (5,5)
- b) Type inference refers to the automatic deduction of the data type. Explain with example. (5,5)
- VII. a) How heap storage management is done in C and Java programming language? (5,5)
- b) What do you mean by binding? Explain with example the various types of bindings. (5,5)

x-x-x