

# POKHARA UNIVERSITY

Level: Bachelor

Semester: Fall

Year : 2020

Programme: BE

Full Marks: 100

Course: Principles of Programming Language

Pass Marks: 45

Time : 3hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

**Attempt all the questions.**

1. a) What are phenomenology of programming language? Explain about the "Fascination and fear are common to new tools". 8  
b) "Pass by reference has dangerous consequences in FORTRAN". Justify it with suitable example. 7
2. a) Illustrate looping in FORTRAN by writing a program to find out the square root of the first ten natural numbers. 8  
b) Describe Name structure of FORTRAN. 7
3. a) ALGOL follows "zero-one-infinity" principle. Verify it comparing with FORTRAN. 8  
b) How ALGOL has changes the way of programming in efficient way? Explain. 7
4. a) Describe different forms of for loop in ALGOL. 8  
b) What are different searching techniques in LISP? Explain them with the help of walking down diagram. 7
5. a) How cases are handled while implementing recursive list processor? 7  
b) What is LISP? Define the structural Organization of LISP program with example. 8
6. a) Explain Message Passing and Returning mechanism in Smalltalk. 8  
b) Describe three forms of message template in SMALLTALK. 7
7. Write short notes on: (Any two) 2×5
  - a) Class representation
  - b) Pseudocode design and Implementation.
  - c) EBNF VS BNF With Examples.