POKHARA UNIVERSITY

Level: Bachelor Semester: Fall Year : 2019
Programme: BE Full Marks: 100
Course: Principles of Programming Languages 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) "The complexity of programming led to the development of program design notations". If this is true explain with reference of Pseudocode. 8
   b) What are phenomenology of programming language? Explain about the "Fascination and fear are common to new tools". 7
2. a) What is the significance of dynamic chain of activation record? Explain with the help of examples. 7
   b) Illustrate looping in FORTRAN by writing a program to find out the square root of the first ten natural numbers. 8
3. a) How the enhanced features of EBNF is efficient as compare to BNF with the help of examples. 8
   b) How ALGOL has changes the way of programming in efficient way? Explain. 7
4. a) What are different searching techniques in LISP? Explain them with the help of walking down diagram. 8
   b) What is LISP? Define the structural organization of LISP program with example. 7
5. a) "Optional variables declarations are dangerous in FORTRAN programming". Justify the statement. 7
   b) Explain Recursive interpreters and storage Reclamation in LISP. 8
6. a) Explain Message Passing and Returning mechanism in Smalltalk. 8
   b) What are different forms of message template in SMALLTALK? Explain them. 7
7. Write short notes on: (**Any two**) 2×5
   a) Assigned GOTO
   b) Block and scope
   c) Lambda Expression
   d) Contour Diagram