

NEPAL COLLEGE OF INFORMATION ECHNOLOGY

Assessment

Level: Bachelor Semester – Spring Year : 2015

Programme: BE SE-VI Full Marks : 100

Course: Principles of programming Languages 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 the basic principles of programming languages? (7)
b. Discuss briefly about the phenomenology of programming languages. (8)
- 2 a. Differentiate between computed GOTO and assigned GOTO in FORTRAN. (7)
b. Explain the subprogram calling in FORTRAN using the activation record. (8)
- 3 a. Explain about nesting of scopes in ALGOL with reference to begin and end. (7)
b. Define the terms BNF and EBNF. Give an example of BNF specification of an ALGOL program. (8)
- 4 a. What is S- expression in LISP? Explain about the data types in LISP. (7)
b. Explain about the control structure of LISP. (8)
- 5 a. How classes and objects are implemented in SMALLTALK? (7)
b. What are the three forms of message templates in SMALLTALK? Illustrate. (8)
6. a. “Orthogonal classification is better than hierarchical classification”. Define this statement with the help of examples. (7)
b. Explain property list and association list with suitable examples. (8)
7. Write short notes (any two) : 2 X 5 = 10
 - a. Array in FORTRAN
 - b. car and cdr function
 - c. pseudocode

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