

R09

Code No: 54028

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, December - 2018

PRINCIPLES OF PROGRAMMING LANGUAGES

(Information Technology)

Time: 3 hours

Max. Marks: 75

**Answer any five questions
All questions carry equal marks**

- 1.a) List and explain major characteristics of a good programming language.
b) What is logic programming? [10+5]
2. What are the rules of EBNF? Explain in detail the advantage and disadvantage of EBNF. Compare the BNF with EBNF. [15]
- 3.a) Explain record and pointer data types.
b) Write about strong typing. [8+7]
4. Explain in detail about the following control structures:
a) Compound Statements
b) Unconditional Statements
c) Guarded Statements. [5+5+5]
- 5.a) What is parameter passing? What are actual and formal parameters? Explain call by value and call by reference.
b) What is sub program? Give example. Explain the design issues of nested subprograms. [8+7]
- 6.a) What is the scope of exception handlers in Ada? Discuss about exceptions defined in the Standard package of Ada.
b) Explain the list structures in Prolog. [8+7]
- 7.a) Give brief description about binary semaphores.
b) Explain various operations that can be performed on atoms and lists in LISP. [7+8]
- 8.a) Discuss about the data types supported in Python.
b) How procedural abstraction and data abstraction is possible in Python? Explain. [7+8]

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