

R09

Code No: 09A50501

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year I Semester Examinations, May/June – 2013

Principles of Programming Languages
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

1. What is meant by programming paradigm? Explain various programming paradigms with examples. [15]
- 2.a) Write BNF description for arithmetic expressions that implements the operator hierarchy of any imperative language.
b) Discuss with an example operator precedence grammar. [15]
- 3.a) Briefly explain the specification and implementation aspects of the following data types.
i) Boolean ii) Character
b) What do you mean by dangling reference? Explain with an example. [15]
4. Discuss in detail the design issues for arithmetic expressions. [15]
- 5.a) Define scope. Explain the static scope and dynamic scope with examples.
b) Explain pass by result parameter passing technique in detail. [15]
6. Discuss how producer-consumer problem and Dining philosopher's problem are solved using concurrency in ADA. [15]
- 7.a) Discuss how exception handlers are helpful in C++ exception handling.
b) Explain the use of java finally clause in exception handling. [15]
- 8.a) Explain some of the important functions of LISP.
b) Describe procedural abstraction in Python. [15]
