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
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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]

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