Code No: NR310505 **NR**

III B.Tech I Semester Supplementary Examinations, November 2006
PRINCIPLES OF PROGRAMMING LANGUAGES
(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Explain the features of object oriented programming.
   (b) Write BNF description for **arithmetic expressions** which implements the Operator hierarchy of any imperative language. [6+10]
2. (a) Explain Loop Statements in Ada programming language.
   (b) What does it mean for an expression to be referentially transparent? [8+8]
3. (a) What is type checking ? Discuss the various types of type checking.
   (b) What is Aliasing ? Explain with examples. [8+8]
4. Discuss the following:
   (a) Runtime implementation of scope.
   (b) Extent with an example. [8+8]
5. Compare the parameter passing mechanisms of ALGOL and ADA languages. [16]
6. Discuss the design issues of exception handling. [16]
7. Explain how concurrency control is implemented using semaphores and monitors. Give suitable examples. [16]
8. What is meant by logic programming? What are the applications of it? Explain logic programming in PROLOG with examples. [16]

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