

Code No: R5310506

III B.Tech I Semester(R05) Supplementary Examinations, December 2009
 PRINCIPLES OF PROGRAMMING LANGUAGES
 (Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

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1. Explain language evaluation criteria and the characteristics that affect them. [16]
2. (a) Distinguish between two mathematical models of a language description.
 (b) What do you mean by static semantic rules? Give examples of programming language structures or elements that can be described easily with attribute grammars than with BNF.
 (c) Describe the basic concept of denotational semantics. [5+5+6]
3. (a) What do you mean by binding? Distinguish between static and dynamic binding.
 (b) Elaborate on character string types. [4+12]
4. (a) Explain Dijkstra's selection construction and loop structure.
 (b) Explain with examples user-located loop control mechanisms provided by various languages. [8+8]
5. (a) Explain the scope and lifetime of variables use examples to demonstrate when they would coincide and when they don't?
 (b) What is the difference between the way original C and C89 deal with an actual parameter whose type is not identical to that of the corresponding formal parameter? [8+8]
6. (a) What are the different levels of abstraction supported by abstract data types in C++ and ADA?
 (b) Explain how message passing can be used to achieve synchronization in dining philosophers problem. [8+8]
7. (a) Discuss Terms and Goal statements in Prolog.
 (b) Explain prolog interfacing process. [8+8]
8. Explain the Basic primitives of LISP. Give suitable examples. [16]