

**II B.Tech II Semester Regular/Supplementary Examinations, May 2010**  
**PRINCIPLES OF PROGRAMMING LANGUAGES**

**Computer Science And Engineering**

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

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Write short notes on:
  - (a) Parameters.
  - (b) Procedures.
  - (c) pass - by - reference.
  - (d) type checking. [4+4+4+4]
  
2. Write short notes on:
  - (a) Functions of ML.
  - (b) Haskell. [8+8]
  
3.
  - (a) Differentiate between Unions and Enumerations
  - (b) Explain how discriminated Unions are implemented. [8+8]
  
4.
  - (a) What is the importance of Readability?
  - (b) How Readability helps in the following concepts:
    - i. Overall Simplicity
    - ii. Orthogonality. [4+6+6]
  
5.
  - (a) Explain the process of decorating the parse tree with attributes.
  - (b) Compute the weakest precondition for the following assignment.  
 $a = 2 * ( b - 1 ) - 1 \{ a > 0 \}$  [8+8]
  
6.
  - (a) How can an exception handler be written in java so that it handles any exception.
  - (b) How are exceptions bound to handlers in C++. [8+8]
  
7.
  - (a) What is the importance of monitors in concurrent pascal. Explain.
  - (b) Explain the producer consumer problem using cooperation synchronization. [8+8]
  
8.
  - (a) Explain how the for structure is implemented in Ada language.
  - (b) Discuss in detail about the Dijkstras Selector statement. [8+8]

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