

Code: R7220502

**R7**

B.Tech II Year II Semester (R07) Supplementary Examinations, April/May 2013

**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 (a) Explain six primary reasons for studying programming languages.  
(b) Write the difference between compiler and interpreter.
- 2 Illustrate the structure of a compiler with neat sketch.
- 3 (a) Explain different categories of bindings with respect to their life time.  
(b) Explain type inference in ML language.
- 4 (a) Explain relational and Boolean expressions with examples.  
(b) Explain short circuit evaluation of expressions.
- 5 (a) Explain the concept of subprogram overloading.  
(b) Write short notes on following:  
(i) pass-by-value. (ii) pass-by-name.
- 6 (a) What is a C++ name space and what is its purpose?  
(b) Explain how information hiding is provided in an Ada package.  
(c) What is a java package and what is its purpose?
- 7 (a) Explain the generate and test programming strategy in prolog.  
(b) Explain difference between procedural and non-procedural languages.
- 8 Write a LISP function that adds a single binding to an association lists. Explain the same.

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