

<b>R07</b>
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**Code: R7220502**

B.Tech II Year II Semester (R07) Supplementary Examinations December/January 2015/2016

**PRINCIPLES OF PROGRAMMING LANGUAGES**

(Computer Science &amp; Engineering)

(For 2008 regular admitted batch only)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) Explain different cost measures for evaluation of any programming language.  
(b) What is an interpreter? Explain with examples.
- 2 (a) Explain about BNF and EBNF notations for describing syntax of a programming language. Give one example for each in C.  
(b) Write about attribute grammars and ambiguous grammars in detail.
- 3 (a) What is an associative array? Explain its structure and operations with respect to perl language.  
(b) What is record data type? How records are defined in COBOL and Ada?
- 4 What are design issues for arithmetic expressions? Clearly explain how precedence and associativity are used to specify operator evaluation order?
- 5 (a) What is operator overloading? Write a C++ Program for operator overloading.  
(b) Explain generic functions in C++ .
- 6 Explain abstract data types in C# with examples.
- 7 (a) Explain overview of logic programming.  
(b) What are possible frames for exception in Ada?
- 8 (a) Write a LISP functions that calculate sum of numbers using a vector.  
(b) Discuss briefly about LISP primitive data types.

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