



Reg. No. : .....

Name : .....

**Sixth Semester B.Tech. Degree Examination, May 2013  
(2008 Scheme)**

**Branch : Computer Science and Engg.**

**08.602 : Principles of Programming Languages**

Time : 3 Hours

Max. Marks : 100



**PART – A**

Answer all questions. Each question carries 4 marks.

1. What are aliases ? Why are they considered as a problem in language design and implementation ?
2. Explain the difference between strict and loose name equivalence.
3. What do you mean by holes in records ? Explain with an example.
4. How is static chain maintained during a subroutine call ?
5. Differentiate between redefining and overriding a method.
6. What is the difference between a coroutine and a thread ?
7. What is lambda calculus ?
8. What is busy waiting ? What is its principal alternative ?
9. What is coscheduling ? What is its purpose ?
10. Differentiate between greedy and minimal matches.

**PART – B**

**Module – I**

11. a) Discuss the different storage allocation mechanism used. 10
- b) Explain with examples, the different types of logically controlled loops. 10

OR



12. a) What do you mean by the bit vector representation of sets ? What are the other options for implementation ? 8
- b) Discuss the expression evaluation rules with examples. 12

### Module – II

13. a) What is an inline subroutine ? What are its advantages and disadvantages ? 8
- b) Describe Prolog search strategy. Discuss backtracking and instantiation of variables. 12

OR

14. a) Explain the following in Prolog. 10
- i) facts
  - ii) rules
  - iii) queries.
- b) Explain the distinction between private, public and protected class members in C++. 10

### Module – III

15. a) What is a thread pool in Java ? What is its use ? 8
- b) Compare the numeric types of popular scripting languages. 12

OR

16. a) How is object orientation supported in Perl ? 10
- b) Briefly explain scoping in Perl. 10