Reg. No. : ....

Name : ....

Sixth Semester B.Tech. Degree Examination, March 2015
(2008 Scheme)
08.602: PRINCIPLES OF PROGRAMMING LANGUAGES (R)
(Special Supplementary)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

1. What do you mean by short circuit evaluation ? Give an example.

2. Distinguish between overloading and overriding.

3. Explain variant record with an example.

4. What is an exception ? How it is handled ?

5. Describe resolution and unification.

6. With a state diagram, explain states of a thread.

7. Explain generic function with an example.

8. Distinguish between static methods and instance methods.

9. What are the main problems with aliases ?

10. Explain implementation of recursive functions.

(10×4= 40 Marks)

PART – B

MODULE – 1

11. a) Consider the following program.

```
Program L;
    Var n:char;
    Procedure W;
    Begin
        Write(n);
    End;
```

```
Procedure D;
Var n:char;
Begin
  n = 'O';
  W;
End;
Begin  (Main Procedure)
  n = 'L';
  W;
  D;
End.
```

What will be the output generated by the above program under

a) Lexical scope and b) Dynamic scope ?   6

b) What do you mean by recursive types ? Explain.   7

c) Give a brief overview of structured and unstructured flow.   7

OR

12. a) Explain different forms of type equivalence with examples.

b) What is the importance of binding time ?

c) Explain heap based allocation.   (8+4+8)

MODULE – 2

13. a) Explain different parameter passing methods used in languages.   10

b) Write notes on dynamic method binding in object oriented programming.   10

OR

14. a) Explain lists in scheme.

b) Explain control flow in scheme.

c) How functions can be defined in scheme ?   (6+6+8)

MODULE – 3

15. a) Explain data types supported by scripting languages.

b) Explain how pattern matching is done in scripting languages.   (10+10)

OR

16. a) What do you mean by virtual machines ?

b) Explain any two synchronization strategies used in different languages.

(5+15)