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Reg. No. : .....

Name : .....

Sixth Semester B.Tech. Degree Examination, May 2014
(2008 Scheme)
Branch : COMPUTER SCIENCE AND ENGG.
08.602 : Principles of Programming Languages

Time : 3 Hours Max. Marks : 100

PART – A

Answer **all** questions. **(10×4=40)**

1. How are programming languages generally classified ?
2. Explain closest nested scope rule.
3. Differentiate between structural equivalence and name equivalence with examples.
4. What are the tasks commonly performed by a subroutine prologue and epilogue ?
5. Describe the different methods of allocating coroutine stacks.
6. Explain the significance of 'this' parameter in object oriented languages.
7. What is an association list ?
8. What is the difference between a thread and a coroutine ?
9. What is co-scheduling ? What is its purpose ?
10. Briefly explain scoping in Perl.

PART – B

Answer **any one full** question from **each** Module.

Module – I

11. Briefly explain the seven major categories of control flow mechanisms. **20**

OR

12. a) Briefly explain type checking. **10**

    b) Write short notes on records and variant records. **10**

P.T.O.

Module – II

13. a) Explain the stack layout for subroutine management. 10

    b) Give a typical subroutine calling sequence. 10

OR

14. Write short notes on : 20

    i) Encapsulation

    ii) Inheritance

    iii) Constructors

    iv) Polymorphism.

Module – III

15. a) Briefly explain string and pattern manipulation in scripting languages. 10

    b) Compare the approaches to object orientation taken by different scripting languages. 10

OR

16. a) Explain the following :

    i) fork/join

    ii) co-begin. 10

    b) Briefly explain remote procedure call. 10