Reg. No. : ....

Name : ....

Third Semester M.C.A. Degree Examination, May 2009
06.305.2. : COMPILER DESIGN
(Elective – I)

Time : 3 Hours   Max. Marks : 100

Instructions *:a) Answer* ***all*** *question from Part* ***A***.
b) Answer ***any two*** *questions from* ***each*** *Module of Part* ***B***.

PART – A   **(10×4=40 Marks)**

1. What is a preprocessor ? What are the functions performed by preprocessors ?

2. Write notes on various compiler construction tools.

3. What are the four components of a context-free grammar ?

4. What is bootstrapping ? Explain.

5. What is DFA ?

6. What are the reasons for using regular expression to define the lexical syntax of a language ?

7. Write an algorithm to construct an SCR passing table.

8. What are DAGs ? Explain its use in compiler design.

9. What are the methods used for evaluating semantic rules ?

10. Give the structures of address descriptors and register descriptors.

PART – B

MODULE – I

11. Give an algorithm to translate an infix expression into postfix and prefix form.　**10**

12. Explain various phases of compilation with an example of IF statements.　**10**

13. Explain predictive passing in detail.　**10**

MODULE – II

14. Explain how to eliminate ambiguity is grammar.　**10**

15. Write short notes on the following
    a) Handler　**5**
    b) Handle Pruning.　**5**

16. Explain lookahead-LR-technique in detail.　**10**

MODULE – III

17. Explain how to eliminate left recursion from a translation scheme.　**10**

18. What are the different types of intermediate code generally used ? Give suitable example for each.

19. Explain recursive evaluators in detail.　**10**

———————