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SEVENTH SEMESTER

B.E.(COE)

MID SEMESTER EXAMINATION *SEPTEMBER-2010*

COE- 401 COMPLIER & TRANSLATION DESIGN

Time: 1 Hour 30 Minutes ***Max. Marks : 20***

Note : Answer ***ALL*** questions.
Assume suitable missing data, if any.

1 Convert the following regular expression into minimal state equivalent DFA.
$(ab^*c)|(abc^*)$ 5

2 A production of the form A→ $A\alpha$ is said to be left recursive. Similarly a production of the form B →βB is said to be right recursive. Show that any grammer that contains both left & right recursive productions with the same left hand side symbol must be ambiguous. 3

3 Consider the following CFG:
$S \rightarrow a|\wedge|(T)$
$T \rightarrow T, s|s$

[a] Compute the operator precedence relations for this grammer. 3
[b] Eliminate left recursion from the grammer. 1
[c] Show the steps of a Top-down passer without back tracking i.e. predictive passer for the string (((a,a), ∧, (a)), a) 4

4 Explain the following terms (any four):-
[a] Handle pruning
[b] Boot strapping.
[c] Regular Expression
[d] Recursive descent passing.
[e] LL(1) grammer.