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B.Tech.(CO)
March– 2019

VI-SEMESTER
MID SEMESTER EXAMINATION

CO-302 Compiler Design   Max. Marks: 30

Time: 1:30 Hours

Note:Attempt all questions

Q.No. 1

A. Compute FIRST and FOLLOW sets and Construct a predictive parsing table for the following grammar,where S is the start symbol.   [7]

$S \rightarrow iEtS \mid a$

$S \rightarrow iEtSeS$

$E \rightarrow b$

B. Explain different phases of compiler with suitable example.   [3]

Q.No. 2

A. Construct SLR(1) parsing table for the following grammar, where S is the start symbol   [5]

$S \rightarrow BB$

$B \rightarrow bB \mid a$

B. What is the role of Push down automata (PDA) in syntax analysis? Eliminate Left recursion from following grammar   [5]

$S \rightarrow aBDh$

$B \rightarrow Bb \mid c$

$D \rightarrow EF$

$E \rightarrow g \mid \epsilon$

$F \rightarrow f \mid \epsilon$

Q.No. 3

A. Consider following grammar and test whether the grammar is LL(1) or not ?   [5]

$S \rightarrow 1AB \mid \epsilon$

$A \rightarrow 1AC \mid 0C$

$B \rightarrow 0S$

$C \rightarrow 1$

B. Design a context free grammar(CFG) for the language L= $\{x^c\ y^c\ z^d\ u^d$ for c>=1,d>=1\}   [5]