

## QUIZ – 1 CSE-313 (Compiler)

Marks: 15

1. Find the operator precedence of the following Grammar in id, #, ~, \$, \*: [3]

$S \rightarrow A * S$   
 $A \rightarrow B \$ A$   
 $B \rightarrow B \sim C$   
 $C \rightarrow D \# C$   
 $D \rightarrow \text{id}$

2. Show that the following Grammar is ambiguous or NOT (with justification): [4]

$S \rightarrow C + A / B + A / B * A / \text{id}$   
 $A \rightarrow A * A / a$   
 $B \rightarrow B + A / a$   
 $C \rightarrow d$

3. Convert the following Left Recursive Grammar to Right Recursive Grammar: [4]

$S \rightarrow S * A / A$   
 $A \rightarrow A \# B / B$   
 $B \rightarrow B \sim C / C$   
 $C \rightarrow \text{id}$

4. Convert the following Non-Deterministic Grammar to Deterministic Grammar:[4]

$S \rightarrow aABC / aABC / aABCAa$   
 $A \rightarrow aA / a / \epsilon$   
 $B \rightarrow bB / b$   
 $C \rightarrow cC / c$   
 $D \rightarrow d$