(c) Determine the language recognized by finite state automaton for which transition table is given below: (2)

State	0	1
A	B	C
B	D	C
C	D	D
D	D	D

Where A is the start state and C is the final state.

Q3. **(a)** Draw the transition diagrams for unsigned numbers like 23, 23.46, 23.45E-35 (2)

(b) Write the algorithm for simulation of DFA and explain with suitable example. (3)

(c) Explain the method of Operator Precedence parsing with the help of suitable example. (5)

Q4. **(a)** Consider the following grammar: (2)

$S \rightarrow aWXh$
$W \rightarrow Wb \mid c$
$X \rightarrow YZ$
$Y \rightarrow m \mid \varepsilon$
$Z \rightarrow n \mid \varepsilon$

Eliminate left recursion from the above grammar.

(b) Verify whether the following grammar is ambiguous or not: (2)

$S \rightarrow aB \mid ab$
$A \rightarrow aAB \mid a$
$B \rightarrow ABb \mid b$

(c) (6)

$S \rightarrow aAB \mid bA \mid \varepsilon$
$A \rightarrow aAb \mid \varepsilon$
$B \rightarrow bB \mid c$

Construct the Predictive parsing table for the above grammar and check whether the grammar is LL (1) or not.