# Quiz01(65_B_CSE228)

## Time: 40 minute

1. Let a finite automaton be →

- Q = {a, b, c},
- ∑ = {0, 1},
- $q_0$ = a,
- F = {c}, and
- Transition function δ as shown by the following table –

| State | 0 | 1 |
|---|---|---|
| a | a | b |
| b | c | a |
| *c | b | c |

Find its graphical representation. It is DFA or NFA? (3)

2. Differentiate between DFA and NFA. (3)

3. Design an NFA for a language that accept all strings over {0,1} in which the second last symbol is always '1'. Then convert it to it's equivalent DFA. (5)

4. Prove that an NFA accepting strings that end with 01. (4)