

## # Task 2

$$\Sigma = \{a, b, c\}$$

$$S = \{1, 2, 3\}$$

$$s_0 = 1$$

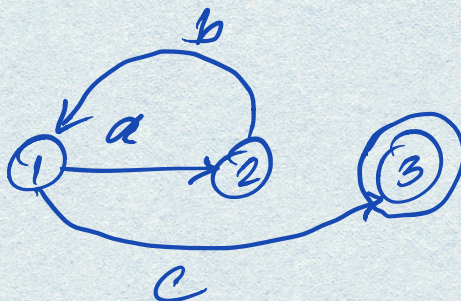
$$\delta(1, a) = 2$$

$$\delta(1, c) = 3$$

$$\delta(2, b) = 1$$

$$F = \{3\}$$

4. Automation:



5. Regex:

$$(ab)^*c$$

6. Accepted strings

i)  $c$   
ii)  $abc$

iii)  $ababce$



### # Task 3

$$m\{1\}(e|e^+)o\{1\}w\{2\}$$

#### 7. simplification

$$me^*o^+w\{2\}$$

$$\text{or, } \underline{me^*o^+ww}$$

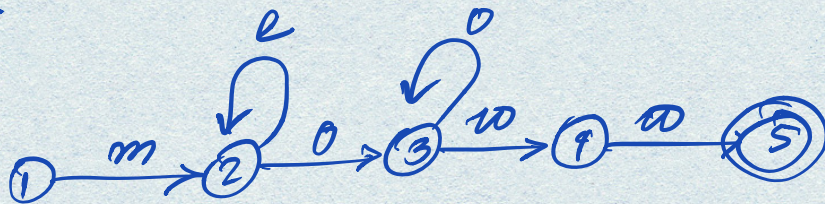
#### 8. accepted strings

i) meoww

ii) moww

iii) meoww

#### 9. FSA



$$\Sigma = \{m, e, o, w\}$$

$$S = \{1, 2, 3, 4, 5\}$$

$$s_0 = 1$$

$$\delta(1, m) = 2$$

$$\delta(2, e) = 2$$

$$\delta(2, o) = 3$$

$$\delta(3, o) = 3$$

$$\delta(3, w) = 4$$

$$\delta(4, w) = 5$$

$$F = \{5\}$$