

CSE-331

Name: MD Ikramul Kayes

ID : 2130 15.76

Sec : 06

Assignment : 01

Ans: to: que: no: 01

a) Ans: $(00|11)^*$

b) Ans: $0 \Sigma^* 1 \mid 1 \Sigma^* 0 \mid 0 \mid 1$

c) Ans: $1^* (0 (11)^*)^* 0 1^* \mid 1^*$

d) Ans: $(0^+ 1^+ 0^+)^* \mid (1^+ 0^+ 1^+)^* \mid 0^* \mid 1^*$

e) Ans: $(\Sigma \Sigma)^* \Sigma$

f) Ans: $1^* (0 (111) 1^*)^*$

Ans: to: que: no: -2

Here,

$$L_1 = (\Sigma \Sigma \Sigma)^*$$

$$L_2 = (\Sigma 0)^* (\Sigma 1 \epsilon)$$

$$\therefore L_1 \cap L_2 = (\Sigma 0 \Sigma 0 \Sigma 0)^* (\Sigma 0 \Sigma 1 \epsilon)$$

Ans: to: que: no: 3

$$L = \Sigma^* 0 \Sigma^* 0 \mid \Sigma^* 1 \Sigma^* 1 \mid \Sigma^* 2 \Sigma^* 2$$

Ans: +o: que: no: 4

$$L = \Sigma^* 1 \Sigma^* 0 \Sigma^* \mid \Sigma^* 0 \Sigma^* 1 \Sigma^*$$

'Ans: +o: que: no: 5

$$L = 1^* (01^+)^* 00 (1^+ 0)^* 1^*$$