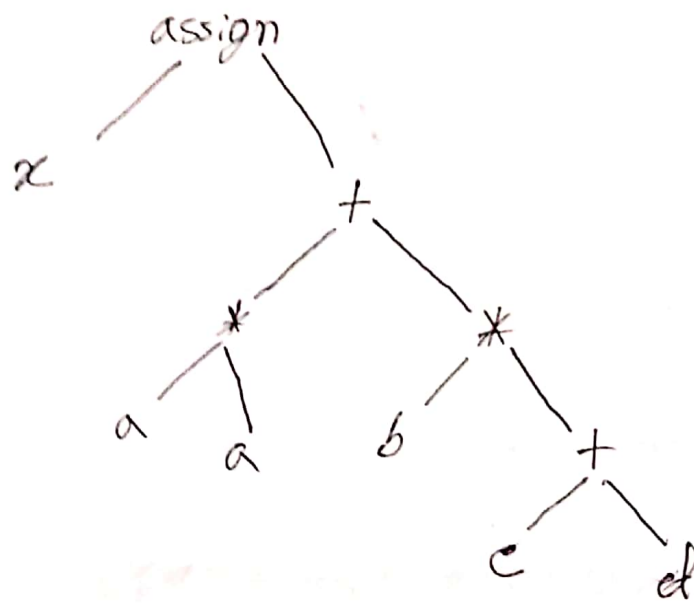


17201012

Answer to Q. No. 1

$$x = a^2 + b * (c + d)$$

Parse tree:



Three address:

temp1 := a^2

temp2 := c + d

temp3 := temp1 + b

temp4 := temp3 * temp2

∴ x := temp4

Answer to the Q. No 4

Write a RE that has atleast one of the followings.

~~i) starts with 0 or 1 ends with 01 and~~
ends with 01 or ends with 10 and both sides
starts with either of regex 0 or 1.

Answer to the Q. No. 3

i) $abab(ab)^* + bab$

ii) $(0+1)^* + 101 + (0+1)^*$

Answer to the Q. No. 2

$$\Sigma = \{0, 1, 2\}$$

States	0	1	2
start → 0	2	3	1
1	{ }	0	0
2	0	{ }	0
3	4	{ }	4
* 4	{ }	{ }	{ }

This is DFA, cause we can't go from one state to another using ^{same} ~~two~~ inputs. ~~As we know~~
~~in DFA~~