Alpha beta Puruning

Name:- mahesh manih malusare

class :- B.E.

Branch:- I.T.

Roll No :- 33

Sub:- ISlab

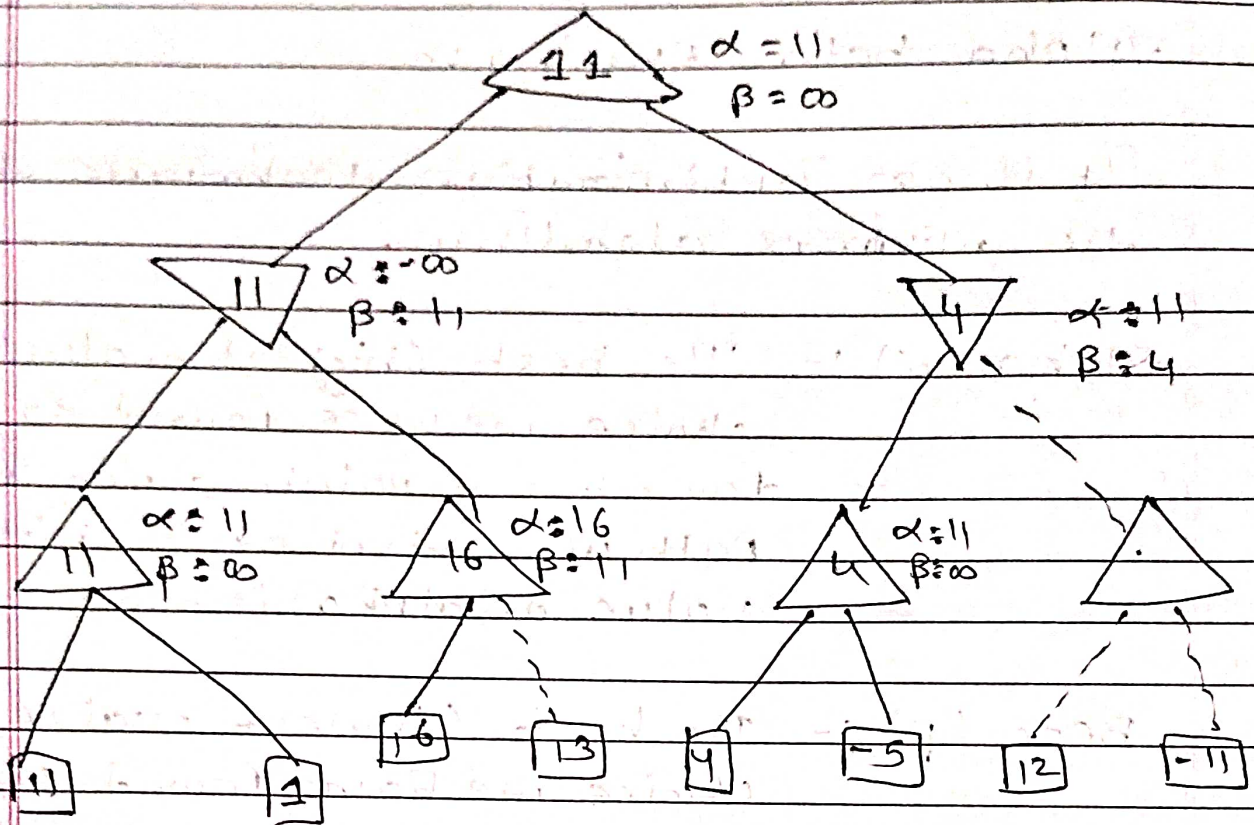| DOP	DOC	Marks	Sign

Alpha beta Pruning :-

It is an optimization technique of the minmax algorithm.

Alpha (α) :- The best (highest -value) choice we have found so far at any point along the Path of maximizer. The initial value of alpha is $-\infty$.

Beta (β) :- The best (lowest -value) choice we have found so far at any point along the path of minimizer. The initial value of beta is $+\infty$.

condition :- $\alpha \geqslant \beta$ or $\beta \leqslant \alpha$ when α is the greater than equal to beta.

$\alpha = 11$
$\beta = \infty$

$\alpha = -\infty$
$\beta = 11$

$\alpha = 11$
$\beta = 4$

$\alpha = 11$
$\beta = \infty$

$\alpha = 16$
$\beta = 11$

$\alpha = 11$
$\beta = \infty$

11   11   4   4

11   1   16   13   4   -5   12   -11

1) $\alpha(-\infty, 16) = 11$
    $\alpha(-\infty, 1) = 1$
    $\alpha(11, 1) = 11$

    — max (Bottom left)

2) $\beta(\infty, 11) = 11$

    — min (left

3) $\alpha(-\infty, 16) = 16$
    $\alpha(-\infty, 13) = 13$
    $\alpha(16, 13) = 16$

    — max (Bottom left)

4) $\alpha(11, 4) =$

    — Top (max)

5) $\beta(11, 16) = 11$

    — min (right)

6) $\beta(-\infty, 16) = 16$ -max (Bottom right)

7) $\alpha(11, 4) = 11$

$\alpha(4, -5) = 4$

$\infty 0 \infty$

8) $\beta(\infty, 4) = 4$ min (right)

$\alpha = 11$

$\beta = 4$

$\therefore \alpha > \beta$.