

## Experiment 5

### Foundations of AI

#### Alpha beta pruning

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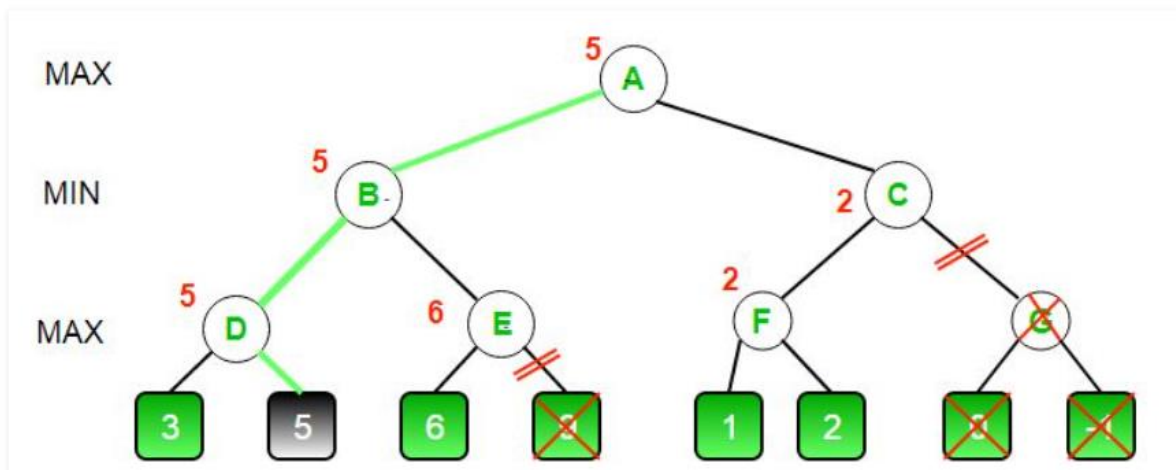
#### AIM:-

To find the optimal scores from the scores of leaf nodes using alpha beta pruning

#### RESULTS AND OUTPUT:-

→

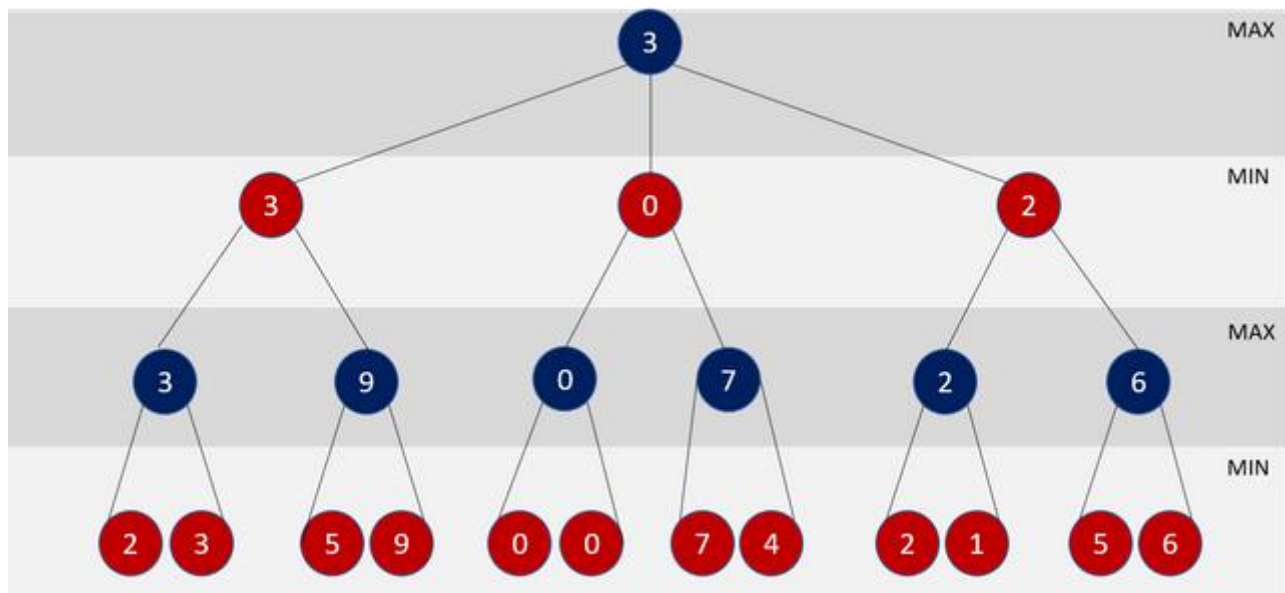
Test case 1:-



Output:-

```
> test_case1 = c(3, 5, 6, 9, 1, 2, 0, -1)
> len1=length(test_case1)
> treeDepth1 = ceiling(log(len1, base=2))
> alphabeta(0, 1, TRUE, test_case1,MIN,MAX, treeDepth1)
[1] 5
> |
```

Test case 2:-



Output

```
> test_case2 = c(2,3,5,9,0,0,7,4,2,1,5,6)
> len2=length(test_case2)
> treeDepth2 = ceiling(log(len2, base=2))
> alphabeta(0, 1, TRUE, test_case2,MIN,MAX, treeDepth1)
[1] 3
> |
```