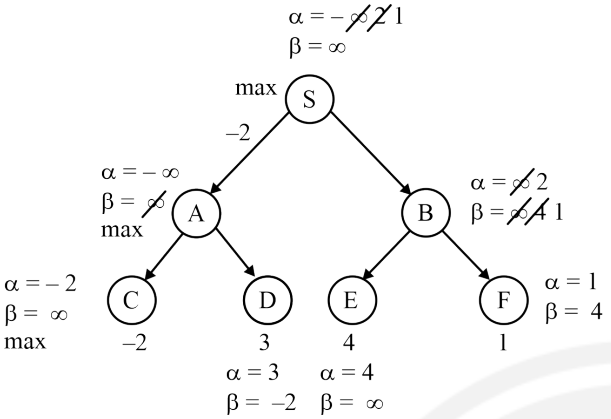
CRASH COURSE GATE 2025

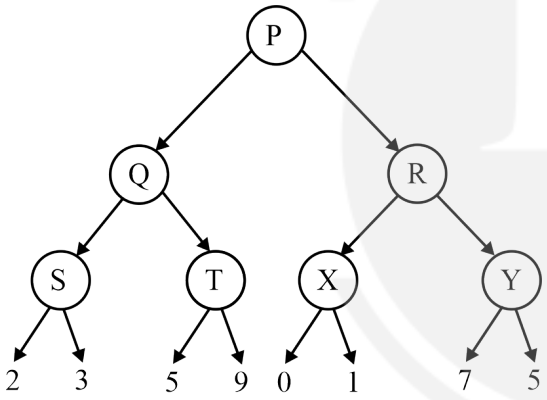
Artifical Intelliegnce

Adversial Search

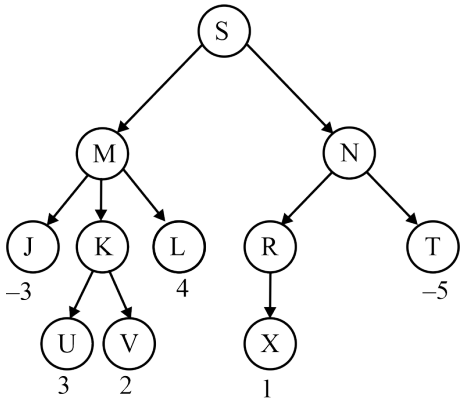
Q1



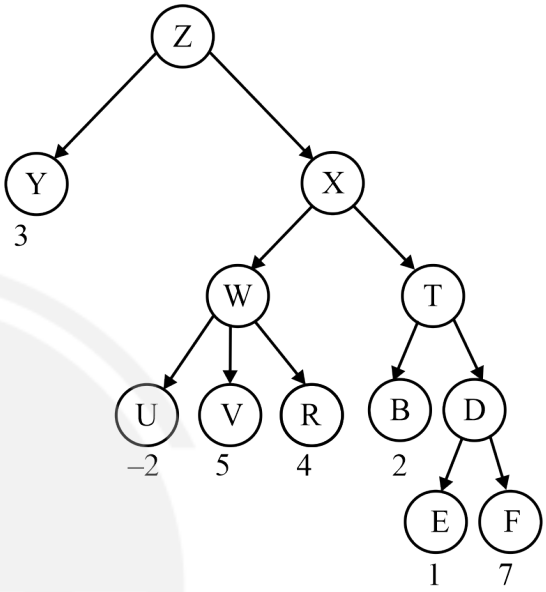
Q2 Count the number of nodes that will be pruned using a –b pruning



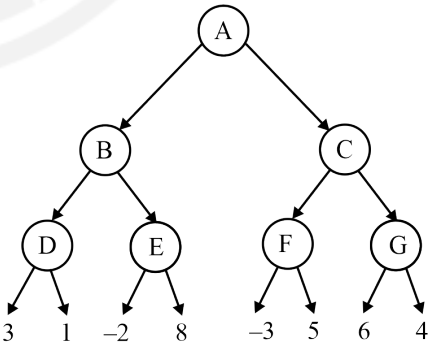
Q3 Consider the tree green below. The root node S is the max player. What will be the best score for this root node S.



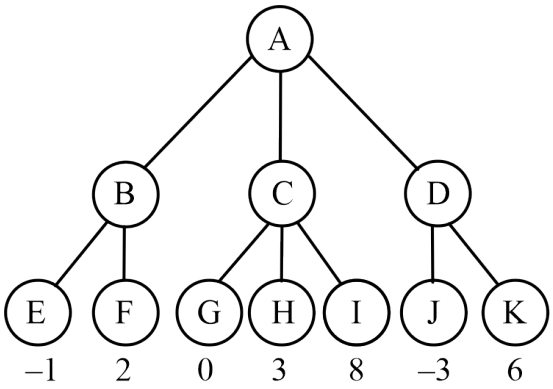
Q4 The best score possible for the root node which is a minimum player is___.



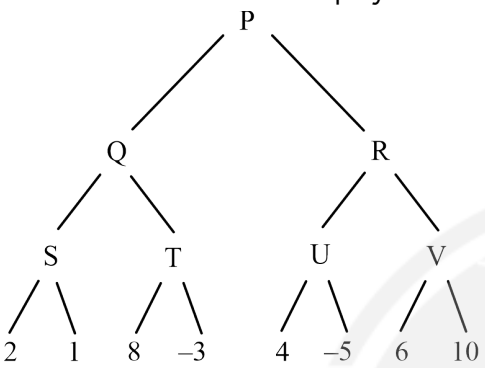
Q5 Consider the following tree. Let X denote the best score of the root node when it acts as the 'max' player. Let Y denote the best score of the root –node when if acts as the 'min' player. The value of x + y is_____.



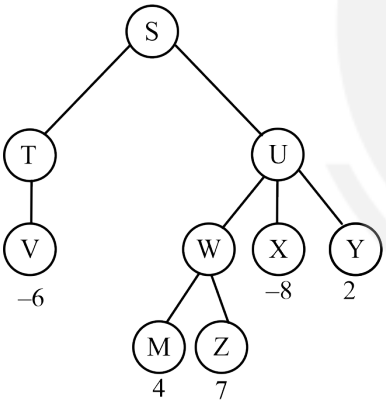
Q6 Find the best result for the root where root acts as the max player:



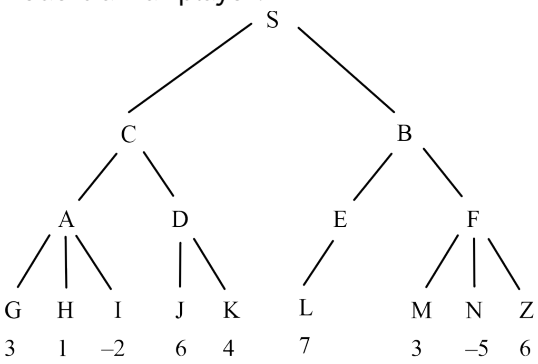
Q7 Find the best result for min player:



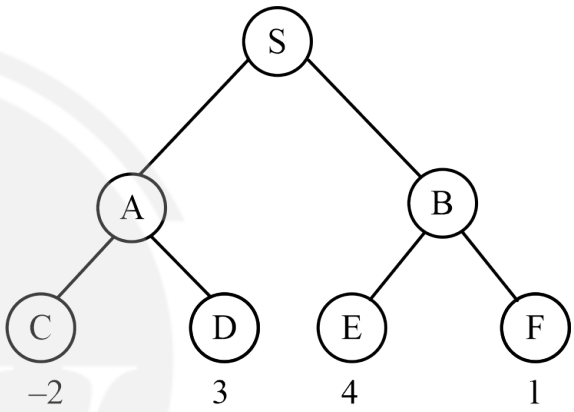
Q8 Find the best score for S (max player) in the following graph:



Q9 What is the best result for node C if the root node is a max player?



Q10 The number of nodes that will be pruned using alpha-beta pruning in the following graph is _____.



Answer Key

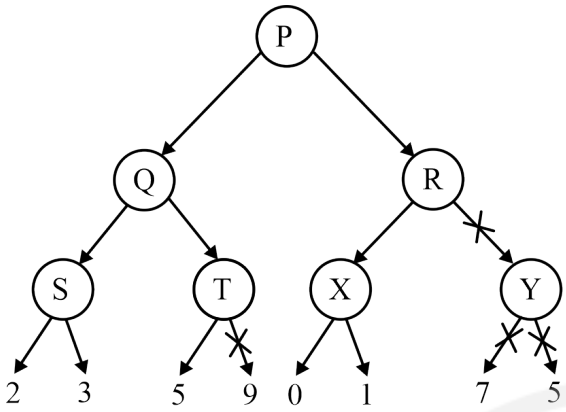
Q1	0
Q2	4
Q3	3
Q4	–2
Q5	6
Q6	0
Q7	–1
Q8	–6
Q9	–3
Q10	0

Hints & Solutions

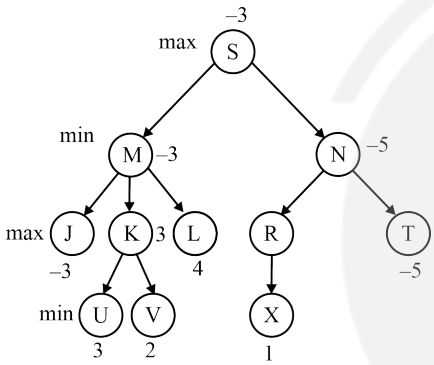
Q1 Text Solution:

No node willbe pruned.

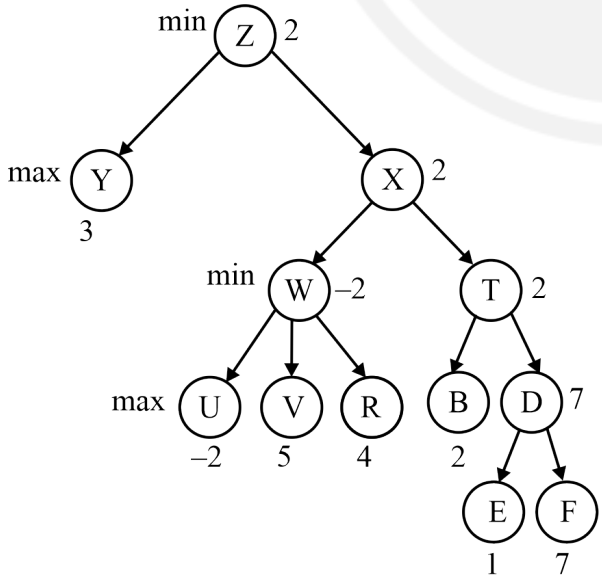
Q2 Text Solution:



Q3 Text Solution:

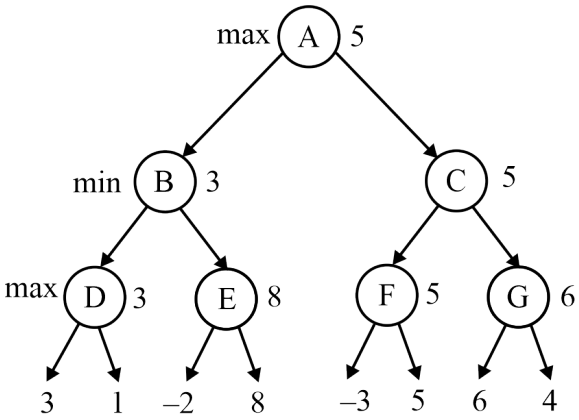


Q4 Text Solution:



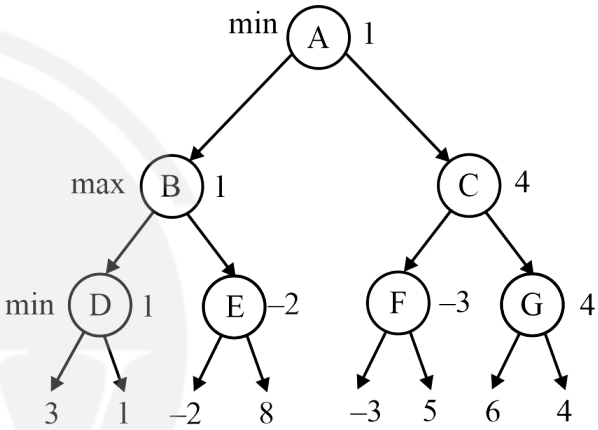
Q5 Text Solution:

For x



X = 5

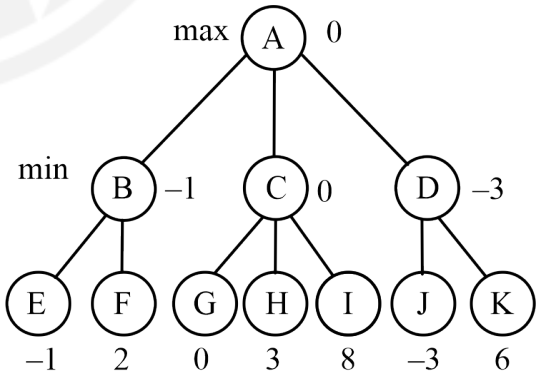
For Y



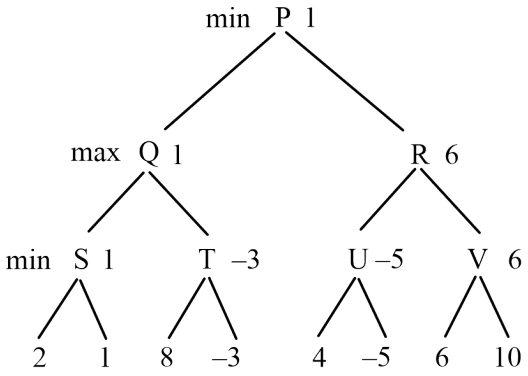
Y = 1

x + y = 5 + 1 = 6

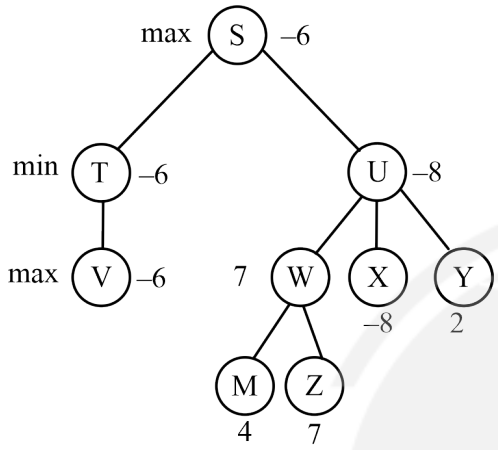
Q6 Text Solution:



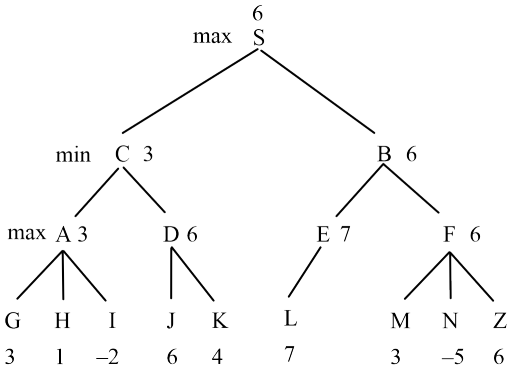
Q7 Text Solution:



Q8 Text Solution:



Q9 Text Solution:



Q10 Text Solution: