1. Write a program to implement Alpha Beta pruning in Python. The algorithm can be applied to any depth of tree by not only pruning the tree leaves but also the entire subtree. Order the nodes in the tree such that the best nodes are checked first from the shallowest node.

```
maximum, minimum=1000,-1000
def fun_alphabeta(d,node,maxp,v,A,B):
  if d==3:
    return v[node]
  if maxp:
    best =minimum
    for i in range(0,2):
      value=fun_alphabeta(d+1,node*2+i,False,v,A,B)
      best=max(best,value)
      A=max(A,best)
      if B<=A:
        break
    return best
  else:
    best=maximum
    for i in range(0,2):
      value=fun_alphabeta(d+1,node*2+i,True,v,A,B)
      best=min(best,value)
      A=min(A,best)
      if B<=A:
        break
    return best
scr=[]
x= int(input("Enter total number of leaf node:"))
for i in range(x):
  y=int(input("Enter node value"))
  scr.append(y)
d=int(input("Enter depth value:"))
node=int(input("Enter node value:"))
print("The optimal value
is:",fun_alphabeta(d,node,True,scr,minimum,maximum))
```

output:

```
Enter total number of leaf node:8
Enter node value2
Enter node value3
Enter node value5
Enter node value9
Enter node value0
Enter node value1
Enter node value7
Enter node value5
Enter depth value:0
Enter node value:0
The optimal value is: 3
```