#include<bits/stdc++.h>

using namespace std;

int solution(vector<string> words, vector<int> farr, vector<int> score, int idx){

if(idx==words.size()) return 0;

// not including word

int max1=0, max2=0;

max1 = solution(words, farr, score, idx+1);

// included

int scoreCh = 0;

bool flag = true;

for(auto ch: words[idx]){

farr[ch-'a']--;

if(farr[ch-'a']<0){

flag = false;

}

scoreCh+= score[ch-'a'];

}

if(flag){

max2 = scoreCh + solution(words,farr,score,idx+1);

}

for(auto ch: words[idx]){

farr[ch-'a']++;

}

return max(max1, max2);

}

// 4

// dog cat dad good

// 9

// a b c d d d g o o

// 1 0 9 5 0 0 3 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0

int main(){

int n;

cin>>n;

vector<string> words(n);

for(int i=0;i<n;i++){

cin>>words[i];

}

int t;

cin>>t;

vector<char> letters(t);

for(int i=0;i<t;i++){

cin>>letters[i];

}

vector<int> score(26);

for(int i=0;i<26;i++){

cin>>score[i];

}

vector<int> farr(26);

for(auto ch: letters){

farr[ch-'a']++;

}

cout<<solution(words,farr,score,0);

}