**An**

**Assignment**

**On**

**“UVA Problem Solutions Using C and Assembly Language”**

**Assembly Language Laboratory**

**[ CSE 2208]**

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**Problem name:** Ecological Been Packing

**C++ Solution:**

#include<stdio.h>

#define swap(x, y) {int t; t = x, x = y, y = t;}

int main() {

char s[4] = "BCG";

int W[6][3] = {{0,1,2},{0,2,1},{1,0,2},{1,2,0},{2,0,1},{2,1,0}};

int B[3][3], i, j, k;

while(scanf("%d", &B[0][0]) == 1) {

for(i = 0; i < 3; i++) {

for(j = 0; j < 3; j++) {

if(i+j == 0) continue;

scanf("%d", &B[i][j]);

}

swap(B[i][1], B[i][2]);

}

unsigned Min = 0xffffffff, idx;

for(i = 0; i < 6; i++) {

int tmp = 0;

for(j = 0; j < 3; j++) {

for(k = 0; k < 3; k++)

if(W[i][j] != k)

tmp += B[j][k];

}

if(tmp < Min) idx = i, Min = tmp;

}

printf("%c%c%c %u\n", s[W[idx][0]], s[W[idx][1]], s[W[idx][2]], Min);

}

return 0;

}

**Assembly Solution:**

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