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Consider the following C/C++ code segment.

```
int g = 4;

int min(int a, int b, int c) {
    int v = a;
    if (b < v)
        v = b;
    if (c < v)
        v = c;
    return v;
}

int p(int i, int j, int, k, int l) {
    int v = min(g, i, j);
    return min(v, k, l);
}

int gcd(int a, int b) {
    if (b == 0) {
        return a;
    } else {
        return gcd(b, a mod b);
    }
}
```

Q1. Translate the code segments above into IA32 assembly language using the basic code generation strategy outlined in lectures.

Q2. What is the maximum depth of the stack (in stack frames) during the calculation of gcd(14, 21)? Draw a diagram showing the state of the stack at its maximum depth during the calculation of gcd(14, 21).

Q3. Using Visual Studio (or equivalent), create a Win32 application with files t1.h and t1.asm containing the IA32 assembly language for min, p and gcd. Write C++ code to test min, p and gcd [see t1Test.cpp]. Hand in listings of your code files and a screen dump of the console window showing the results of your program.