

1. We are given the following program in a new imperative programming language Tau that is statically scoped. Its statements have the usual meanings and are similar to 'C'. Parameters are always passed by value.

```
void main() {
    int w=6, m=7;

    void g(){
        w++;
        print "sum is", 3+w;
    }

    void h(){
        int z = 4;
        print "sum is", z+w;
    }

    void f(int y){
        if (y<5)
            then h()
        else g();
    }

    f(w);
}
```

Assume static links are used to maintain scope information. For the Tau program above which contains the *main()* function, show the **contents of the system stack** at the point some *print* statement is being executed. Assume *main()* is the first function to be called. Make sure you show all relevant pointers, including the environment pointer EP, the pointer *top*, as well as the local variables, parameters, and other data stored in the activation records. (14 pts)