

F28HS2 Hardware Software Interface Laboratory 5

Write and test an assembly language program to carry out the following horrendously inefficient $O(N^2)$ bubble sort:

```
int AMAX = 100
int a[AMAX];
int i;
int j;
int t;
for(i=AMAX-1;i>=0;i--)
  for(j=0;j<i;j++)
    if(a[j]>a[j+1])
      { t = a[j];
        a[j] = a[j+1];
        a[j+1] = t;
      }
```

Use the initialisation code from Lecture 8 to populate array A.