MECE101 Final Exam

Name:

Surname:

Number:

**Q1)** The MATLAB function code given below is a sorting (in Turkish sıralama) algorithm

```
function [vector_output, counter]=optimum_siralama_sinav(vector)
counter=0;
length_vector=length(vector);
for j=1:length_vector-1
for i=1:length_vector-j,
   if vector(i)>vector(i+1),
     degisen_vector=vector(i);
     vector(i)=vector(i+1);
     vector(i+1)=degisen_vector;
     counter=counter+1;
   else
   end
end
end
vector_output=vector
```

counter = 8

vector_output = [1 2 3 4 5]

This function is called in MATLAB where vector=[4 5 2 3 1]

```
[vector_output, counter]=optimum_siralama_sinav(vector)
```

Find 'vector_output' and 'counter' (50 points)

**Q2)** The MATLAB function code is given below:

```
function output2=function_exam_q2(a,b,n)
for i=1:n,
  output2(i)=a*b;
  a=b;
  b=output2(i);
end
end
```

output2 = [2 4 8 32 256]

This function is called in MATLAB as

```
output2=function_exam_q2(1,2,5)
```

Find the value of 'output2' (50 points)