Electrical Engineering and Computer Science
CSE 1560

Sample Midterm
Wed. Mar. 30, 2014

Answer all questions in the space provided

Make sure that you have 6 pages

Student Last Name: _____

Student Given Name: _____

Student Id. No: _____

Question	Value	Score
A	40	
B	60	

Question 1. [40 points]

1. [5 points] What would the value of the following expression be if the precedence was from right to left

```
1>2<=3
```

2. [5 points] How does one get the handle to the sine function in Matlab.

3. [5 points] What is a primary function.

4. [5 points] What is the size of arguments `A, B, C` in the call to `mesh(A, B, C)` if we want a plot with 100x100 points.

5. [5 points] What vector represents the polynomial

$$1 + 3x + x^3$$

in Matlab

6. [5 points] What does the function `conv` do?

7. [5 points] What is the size of the vector returned by `root(p)` if `p` has size 5

8. [5 points] Give an example of an anonymous function.

Question 2.

[60 points]

1. [10 points] What is the bug with the following Matlab code

```
function [ A ] = buggyfun(B)
%BUGGYFUN is buggy

B = inv(A)+1;
return;
end
```

2. [10 points]

What is the bug with the following Matlab code

```
V = rand(1,10)
for i=1:10
  V(i) = V(i-1)^2;
end
```

3. [20 points]

Write a simple Matlab function named `vecint` that integrates a vector. The procedure accepts one argument, a column vector V and returns another vector. Every element of the new vector is the sum of all previous elements in the original vector.

4. [20 points]

Write a simple matlab procedure named `mergevec` that accepts two arguments, both of them column vectors. These Vectors are assumed sorted and not necessarily of equal size. The procedure returns another vector, with size equal to the sum of the sizes of the two original vectors. The new vector contains the elements of both original vectors sorted.