Question 1)

```
clc
clear all

%n=input ('Enter Value of n ');
b=zeros(5,5);
for i=1:5
 for j=1:i
        matrix(i,j)=j;
 end
end
    disp(matrix)
```

Command Window

```
     1     0     0     0     0
     1     2     0     0     0
     1     2     3     0     0
     1     2     3     4     0
     1     2     3     4     5

fx >>
```

Question 2)

Editor - C:\Users\Admin\Desktop\question2.m

prime_no_best.m | question2.m | question3.m | Untitled.m | Untitled2.m | first.m

```
for x=1:5
    for j=4:-1:x
        fprintf(' ');
    end
    for j=1:x
        fprintf(' *');
    end
    fprintf('\n');
end
for x=1:4
    for j=1:x
        fprintf(' ');
    end
    for j=4:-1:x
        fprintf(' *');
    end
    fprintf('\n');
end
```

Command Window

```
    *
   * *
  * * *
 * * * *
* * * * *
 * * * *
  * * *
   * *
    *
fx
```

Question 3)

```
clc
clear all

A=[2 5 7 9; 3 4 5 0; 8 4 3 1; 77 55 48 91];
MAX=A(1,1);
for i=1:4
  for j=1:4
    if MAX<= A(i,j);
      MAX=A(i,j);
    end
  end
end
disp (' Maximum elemnet is ')
disp(MAX)

MIN=A(1,1);
for i=1:4
  for j=1:4
    if MIN > A(i,j);
      MIN =A(i,j);
    end
  end
end
disp (' Minimum elemnet is ')
disp(MIN)
```

```
A =

     2     5     7     9
     3     4     5     0
     8     4     3     1
    77    55    48    91

 Maximum elemnet is
    91

 Minimum elemnet is
     0

>>
```

Question 4)

question2.m | question3.m | Untitled.m | Untitled2.m | first.m

```
clc
clear all

a= input ('Enter the population of city A ');
b=input ('Enter the rate of increase ');

c= input ('Enter the population of city B ');
d=input ('Enter the rate of increase ');
year=0;
if (a < c && b > d)


            while (a < c);

                a = ((a / 100) * a) + a; %// calculates population growth in one year
                c= ((c / 100) * c) + c;
                year= year+1;

            end

end
 disp(year)
```

Command Window

```
Enter the population of city A 30000
Enter the rate of increase 15
Enter the population of city B 40000
Enter the rate of increase 10
     7

>>
```