Department of Electrical and Computer Engineering

Course name : **CAED Laboratory**

Course code : **CE205L**

Semester : **III** Degree : **BCE-2019** Date : **11/19 /20**

Name : Zaha Usmani **Instructor : EE-Engr. Faisal Nawaz**

Registration No. : 191233

Question No. 1:

```
matrix= zero (5,5)

for i = 1:5

for j = 1: i

matrix ( i , j)= j;

end

end

disp (matrix)
```

output

```
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
```

Question No. 2:

```
for i = 1: 2: 9

for j= 9: -2 :i

print (' ')

end

for l = 1 : i

print ('* ')


end
```

```
print ('\n')

end

for i = 7: -2 :1

for j = i:2:9

print (' ')

end

for l=i: -1: 1

print ('* ')


end

print ('\n')

end
```

Question No. 3:

Find the maximum & minimum value in the given matrix without using built in functions.

```
a=[2 5 7 9 ; 3 4 5 0; 8 4 3 1; 77 55 48 91]


maxvl=a(1);

for p=2:numel(a)

 if a(p)>maxvl

  maxvl=a(p);

 end

end

maxvl
```

output

tesult
PU Time: 0.09 sec(s), Memory: 40272 kilobyte(s)

```
a =

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

maxvl =  91
```

Question No. 4:

```
clc

syms x;

syms popA

syms popB

syms rA

syms rB

popA=input('enter population of city');

rA=input('Enter the rate of increase');

popB=input('enter population of city');

rB=input('Enter the rate of increase');

disp('years are ')

equ=popA.*((100+rA)/100).^x==popB.*((100+rB)/100).^x


count=vpa(solve(equ,x))
```

```
enter population of city 212
Enter the rate of increase 23
enter population of city222
Enter the rate of increase 56
years are

equ =

212*(123/100)^x == 222*(39/25)^x


count =

-0.19392765959356781044256560255 13

fx >>
```