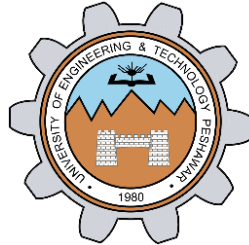


CIRCUIT ANALYSI USING MATLAB

LAB # 12



Spring 2023

CSE103L Circuits & Systems-I Lab

Submitted by: Naveed Ahmad

Registration No: **22PWCSE2165**

Class Section: **B**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: _____

Submitted to:

Dr. Muniba Ashfaq

Month Day, Year (June 10, 2023)

Department of Computer Systems Engineering
University of Engineering and Technology, Peshawar

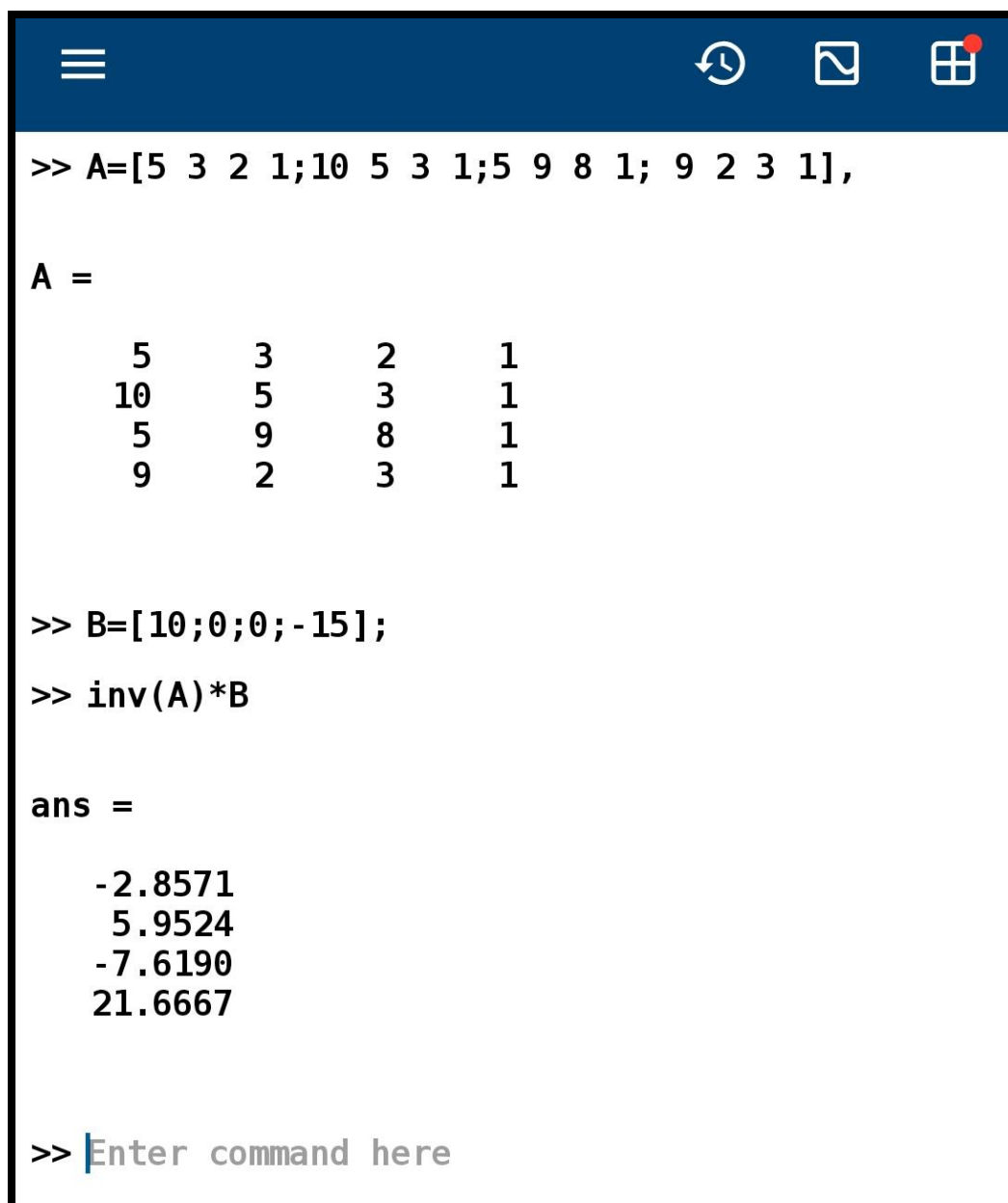
OBJECTIVES:

In this lab we will solve for the matrix for previous 2 labs using Matlab.

MATLAB

MATLAB is a high-performance language for technical computing. It integrates computation, visualization, and programming in an easy-to-use environment where problems and solutions are expressed in familiar mathematical notation. Typical uses include: Math and computation.

SOLUTION:

A screenshot of the MATLAB command window interface. The window has a dark blue header bar with three icons: a hamburger menu, a circular arrow (refresh), and a window icon. The main area is white and contains the following text:

```
>> A=[5 3 2 1;10 5 3 1;5 9 8 1; 9 2 3 1],  
  
A =  
  
     5     3     2     1  
    10     5     3     1  
     5     9     8     1  
     9     2     3     1  
  
>> B=[10;0;0;-15];  
>> inv(A)*B  
  
ans =  
  
    -2.8571  
     5.9524  
    -7.6190  
    21.6667  
  
>> |Enter command here
```

CONCLUSION:

We simply entered values for matrix A & B and entered a command for how to solve these matrices. We have used inverse method to solve $A*B$ matrix and thus we found the 3 values

LAB RUBRICS: (Circuits & Systems-I Lab)

Criteria & Point Assigned	Outstanding 4	Acceptable 3	Considerable 2	Below Expectations 1
Attendance and Attentiveness in Lab PLO10	Attended in proper Time and attentive in Lab	Attended in proper Time but not attentive in Lab	Attended late but attentive in Lab	Attended late not attentive in Lab
Equipment / Instruments Selection and Operation PLO1, PLO2, PLO3, PLO5,	Right selection and operation of appropriate equipment and instruments to perform experiment.	Right selection of appropriate equipment and instruments to perform experiment but with minor issues in operation	Needs guidance for right selection of appropriate equipment and instruments to perform experiment and to overcome errors in operation	Cannot appropriately select and operate equipment and instruments to perform experiment.
Result or Output/ Completion of target in Lab PLO9,	100% target has been completed and well formatted.	75% target has been completed and well formatted.	50% target has been completed but not well formatted.	None of the outputs are correct
Overall, Knowledge PLO10,	Demonstrates excellent knowledge of lab	Demonstrates good knowledge of lab	Has partial idea about the Lab and procedure followed	Has poor idea about the Lab and procedure followed
Attention to Lab Report PLO4,	Submission of Lab Report in Proper Time i.e. in next day of lab., with proper documentation.	Submission of Lab Report in proper time but not with proper documentation.	Late Submission with proper documentation.	Late Submission Very poor documentation