TEST1 MATLAB FEB 2025

Q1 Create the following matrix in MATLAB: (1)

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

What is the MATLAB command to extract the second column of A?

Q2 Write the command to convert the following matrix into a single column vector: (1)

$$J = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$$

Q 3 Write the command to sort each row of matrix K in ascending order (1)

$$K = \begin{bmatrix} 9 & 3 & 5 \\ 7 & 1 & 8 \end{bmatrix}$$

Q4 Write a command to extract all elements from matrix P that are greater than 5: (1)

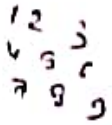
$$P = \begin{bmatrix} 3 & 7 & 2 \\ 8 & 4 & 6 \end{bmatrix}$$

Q5 What will be the output of the following MATLAB code? (1)

```
X = [3.6 2.4 5.9];
Y = round(X);
disp(Y)
```

Q6 What will be the output of this code? (1)

```
A=[1 2 3; 4 5 6;7 8 9];
```



B=A(3:-1:1,1:3);

C =[A B ( : , [1 3] ) ]

Q7 : Write a command to delete the third column of matrix A (1)

Q 8 Write a MATLAB program that takes an array as input from the user. Removes all duplicate numbers without using built-in functions . Preserves the first occurrence of each unique element and maintains the original order. Displays the resulting array without duplicates. Uses only for and while loops to achieve this. (8)