



Final Exam / 2017-2018

Note1: Answer five questions only.

Note2: Each Question has (20) marks.

Q1// (A) Match the elements in column (A) with its dominant application represented by elements of column (B):

A	B
1. The command used to change row into column in a matrix (A) and vice versa.	a. Static text
2. Round towards $+\infty$	b. ceil
3. Convert an image file from colored to binary form	c. A'
4. The command used to split the graph plot window to several or multiple $n \times m$ array of smaller windows	d. im2bw
5. The component used to display a fixed text in the GUI.	e. rgb2gray
	f. subplot

(B) Solve the following system:  $x + y - 2z = 3$ ,  $2x + y = 7$ ,  $x + y - z = 4$

Q2// (A) Show the output after the following codes are executed:

- 1)  $x=[1,2,3; 4,5,6; 7,8,9]$ ;  $x([1\ 3],2)$
- 2)  $x=[1,2,3; 4,5,6; 7,8,9]$ ;  $x(:,2)=3+x(:,1)$
- 3)  $x=[2:2:18]$ ;  $x=x([2:3:8])$

(B) List the applications of Matlab.

Q3// Write a Matlab script that computes the value of the following series:

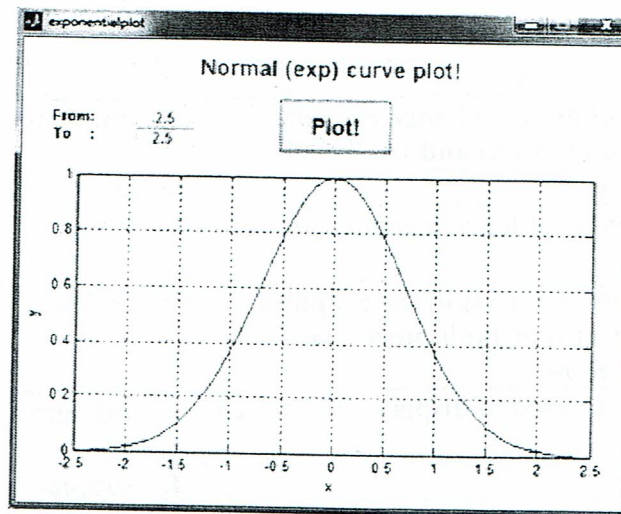
$$Y = 1 + \frac{1}{2!} + \frac{1}{3!} + \dots + \frac{1}{10!}$$

Q4// (A) Define the meaning of "Debugging" in detail.

(B) Plot the following functions by showing them on one window. All functions must be in the interval  $0 \leq x \leq 2\pi$ .

1. The surface of  $y' * y$  matrix, when  $y = \cos(2\pi x)$
  2. A 3D graph with vectors of  $a = \cos(x)$ ,  $b = \sin(x)$ , and  $c = x^3$ .
  3.  $y = e^{x^2}$
  4. A bar function  $y = x + 2$ .
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Q5// Write Matlab script for plotting the Exponential (Normal) curve for any start and end values using the design beside.



Q6// Write a matlab script to check if the entered no. is primary or not.



رئيس القسم

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Good Luck



مدرسة المادة

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