



- Attempt all the following questions, and assume any missing data when necessary.
- The exam. consists of 2 questions on one page
- Total counted marks 20

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**Question 1** (10 marks)

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**(1-A) Define the use of the following Matlab function,**

asin( ) , int( ) , tic , toc , date ( ) [2.5 marks]

**(1-B) Answer the following questions** [2.5 marks]

- I- According to order of precedence, does parentheses come before exponentiation?
- II- Which format used for displaying four decimal places of calculated values?
- III- How many elements are generated in the  $X = [2 : 7 ; -9: 1: -4]$ ; show also the result
- IV- What is function of **hold on** command
- V- What is the purpose of using the function **linspace(a,b,n)**

**(1-C) Write the correct MATLAB command or format to fill in the blank:** [2.5 marks]

- I) ..... ( ' The value of x = ' ) , disp(x)
- II)  $X = [-10: (\text{positive step or negative step}): 15]$ ;
- III) Command ..... (X,Y,Z,'option') used for 3D-plot.
- IV) Command .....(i , j) generate matrix of ones elements of dimension i by j.
- V) Command ..... (x,y, ' option ' ) is used to plot in stem format

**(1-D) What is the effect of using the following?** [2.5 marks]

- I- Write “ ; ” at the end of a statement
- II- Write “ ; ” between elements in a matrix
- III- Write “ % ” at the beginning of a line
- IV- Write “ ... ” at the end of a line
- V- Write “ .\* ” in multiplying two matrices

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**Question 2** (10 marks)

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**(2-A) Write Matlab script code to plot two curves on the same diagram with different y-axis scale within the range  $-2\pi \leq t \leq 2\pi$ , where  $\mathbf{x} = t e^{\cos t}$  and  $\mathbf{y} = t e^{\sin t}$ .**

Plot x and y versus t, where x -curve in “blue” “dash-dot”, and y -curve in “red, square”.

Display the grid, label the axes, and title the diagram with suitable names. [5 marks]

**(2-B) Write Matlab script code to acquire your personal data (e.g. Name, Address, ID number) using INPUT statements and then print these data using only one FPRINTF statements in order to print each one in new line.** [5 marks]

WITH MY BEST WISHES,