AD-3287
Third Year B. Sc. (Sem. VI) Examination
March/April – 2015
Electronics : Paper - XI
(Simulation using Matlab)

Time : 2 Hours] [Total Marks : 50
Instructions :
(1)
(2) Figures to the right indicate full marks.
(3) Assume data wherever necessary.
(4) Use suitable examples.

1  Write very short answers :

(1)  What is command history ?
(2)  Explain the 'hold on' command.
(3)  If \( a = [1, 2, 3, 4, 5, 6] \) what will be printed if a
     command \( a' \) is executed?
(4)  What it the use of 'grid on' command?

2  (A) Discuss the Matlab desktop and explain the function
    of each window.

   (B) Write commands for the following :

     (1) Creating an array of 100 numbers from \(-\pi\) to \(\pi\)
     (2) If 'a' is a matrix then square all the array
         elements of a matrix.

   OR

2  (A) Discuss the facilities provided by Matlab to generate
    2D plots.

   (B) Write a program to plot a function \( y = 3x^2 \)

AD-3287] 1 [Contd...
3 (A) Explain how a 3x3 matrix is entered in a variable called 'grace'. Explain how would each element of the matrix be modified in the following ways
- Add a value 5 to each element
- Multiply each element by a value 3
- Generate the fifth power of each element.
(B) How are individual elements of matrix addressed in Matlab? Explain giving suitable examples.

OR

3 (A) What is a function? Discuss the method of writing functions in Matlab giving suitable examples.
(B) Write a Matlab function so that it returns a cos of an angle given in degree.

4 Write short notes (ANY TWO)
   (1) All Matlab operators
   (2) The 'IF' statement
   (3) Solving linear equations
   (4) Simulink