DRR-3287
Third Year B. Sc. (Sem. VI) Examination
March / April - 2016
Electronics : Paper - XI
(Simulation Using Matlab)

Time : 2 Hours] [Total Marks : 50

Instructions :
(1) Fill up strictly the details of signs on your answer book.
Name of the Examination :
Third Year B. Sc. (Sem. VI)
Name of the Subject :
Electronics : Paper - XI
Subject Code No. : 3287
Seat No. :

(2) Figures to the right indicate full marks .
(3) Assume data wherever necessary.
(4) Use suitable examples.

1 Write very short answers :
   8
   (1) What does Matlab stand for?
   (2) What is the use of semicolon (; ) after writing a Matlab command on the command window?
   (3) If \( a = [1, 2, 3, 4, 5, 6] \) what will be printed if a command \( a' \) is executed?
   (4) What is the use of `grid on' command?

2 (a) Discuss the Matlab desktop and explain the function of each window. 8
   (b) Write commands for the following : 6
       (1) Creating an array of 100 numbers form \(-\pi\) to \(\pi\).
       (2) If \(a'\) is a matrix then square all the array elements of a matrix.

OR

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[Contd...
2. (a) Discuss the facility provided by Matlab to perform matrix operations.

(b) Write a program to solve the following set of linear equations:
    \[ 3x + 5y + 4z = 25 \]
    \[ 2x - 3y + z = 11 \]
    \[ x + y - z = 22 \]

3. (a) Discuss the plotting graphs related commands used in Matlab giving suitable examples.

(b) Write a program to plot a graph demonstrating three phase voltage.

OR

3. (a) What is a function? Discuss the method of writing functions in Matlab.

(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 (give suitable examples) 
   (2) Simulink 
   (3) Matlab conditional statement (if) 
   (4) Getting inputs in a Matlab program.