



# RAN-1221

## T Y B Sc Electronics Semester VI Examination

### March / April - 2019

### Electronics Paper XI

### Simulation using Matlab

सूचना : / Instructions

नीचे दृशविवेक निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.  
Fill up strictly the details of signs on your answer book

Name of the Examination:

T Y B Sc Electronics Semester VI

Name of the Subject :

Electronics Paper XI

Subject Code No.: 1 2 2 1

Seat No.:

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Student's Signature

**Q. 1 Write very short answers**

**[08]**

1. What is command history?
2. Explain the 'hold on' and 'hold off commands
3. What is Matlab?
4. If  $a = [101, 102, 301, 406, 510, 600]$  what will be printed if a command 'a' is executed?

**Q.2 A** Explain the linspace command used in Matlab. What will be printed in the Matlab command window on execution of the command linspace (-5,5,11)?

**[08]**

**B** Write a program to plot the discharging voltage across a capacitor in RC circuit

**[06]**

**OR**

**Q.2 A** What is a Matlab Function? Explain how a Matlab function file is created and executed giving suitable example.

**[08]**

**B** Write a set of commands to plot a straight line, also print a sine wave on the same plot.

**[06]**

- Q.3** A Explain the Matlab arithmetic operations and the element wise operators [08]  
giving suitable examples
- B Select a suitable axis for the function  $y = x^2$ , and plot it. Give proper [06]  
axis label and graph title

**OR**

- Q.3** A Explain the input statements used in Matlab programs [08]
- B Write a program to accept an input value and test it if it is positive or [06]  
negative.

- Q.4** **Write Short Notes (Any Two)** [14]
1. Matlab desktop
  2. Element wise Matrix operations
  3. Simulink
  4. Plotting in Matlab (2D plots)
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