**Department of Electronics & Communication Engineering**

(Faculty of Technology, Dharmsinh Desai University, Nadiad)

**Academic Year: 2022 - 2023**

**TUTORIAL – 2**

**Subject *:****(ESC101) BASIC ELECTRICAL ENGINEERING*

**Class :**  *B. Tech. Sem.I (EC/CE/IT)*

**Topics :***Kirchhoff current and voltage laws, analysis of simple circuits with dc*

*excitation. Thevenin and NortonTheorems*

|  |  |
| --- | --- |
|  | Find Vo using nodal analysis. |
|  | Analyze the circuit using Nodal analysis to find V1 and V2. |
|  | Find voltageVa for the circuit shown in below figure. |
|  | The circuit shown in Figure(b) is the Thévenin equivalent circuit of the circuit shown in Figure (a). Find the value of the open-circuit voltage, voc, and Thévenin resistance, Rt. |
|  | Find the Thévenin equivalent circuit for the network given below across terminals a-b. |
|  | Find the Norton equivalent circuit for the network external to the 9 Ω resistor in given figure below.  ` |

**Prof. Shital Thakkar*(shitalthakkar.ec@ddu.ac.in)***

**Prof. J. M. Shah *(jmshah.ec@ddu.ac.in)***