## Reg. No.:

Name :


Mid-Term Examinations - November 2021

| Programme | $:$B.Tech [BAC,BAI,BAS,BCE,BCG,BEC,BHI, <br> BME,BMR,BOE,BSA] | Semester | $:$ Fall 2021-22 |
| :--- | :--- | :--- | :--- |
| Course | $:$ Electric Circuits and Systems | Code | $:$ EEE1001 |
| Faculty | $:$ Dr. Baldev Swamy | Slot/ Class No. | B21+B22+B23/0082 |
| Time | $: 1 ½$ hours | Max. Marks | $: \mathbf{5 0}$ |

## Answer all the Questions

Q.No.

Question Description
Marks
1 Solve the given below network circuit by using Mesh analysis to find $V_{0}$ and $V_{x}$ and also find the voltage across each resistor element?


2 Calculate the values of total current I and voltage across the each element (R,L,C) of the below circuit?


3 Calculate the minimum and maximum values of the series resistance Rs of the below circuit, IzM is zener maximum current?


Evaluate the voltage gain of the given below circuit by using the CB configuration and consider the alpha ( $\alpha$ ) value is 1 ?


5 Implement the following Boolean function $f(a, b, c)=\sum(1,2,6,7)$ by using 4:1 Mux.

