Brac University

Department of Electrical & Electronic Engineering

Semester - Fall25

Course Number

Course Title: ELECTRONIC CIRCUITS I LABORATORY

Section:01

Lab Report

Experiment no. 03

Name of the experiment: Clipping and Clamping

Prepared by:

Name: Tashin Ahmed Sakib ID: 24121076

Group Number: 01

Other Group members:

Sl.	*ID*	*Name*
01	*24121308*	*Alif Tamjid*
02	*24121205*	*Souvik Barman Ratul*
03	*24121058*	*Muhammad Mushfiqur Rahman*
04	*24121204*	*Abir Chowdhury Ratul*

Experiment 03

Clipping and Clamping

Objective: To find the operation and characteristics of diode-based clipping and clamping circuits by analyzing their modification of the peak amplitude and DC reference level of input waveforms.

Equipments:

1.Breadboard

2.Jumper Wires

3. AC and DC voltage Source

4.10KΩ and 220KΩ Resistors

5.Diode (1N4007)

6. 1μF Capacitor

7. Oscilloscope

Clipping Circuit:

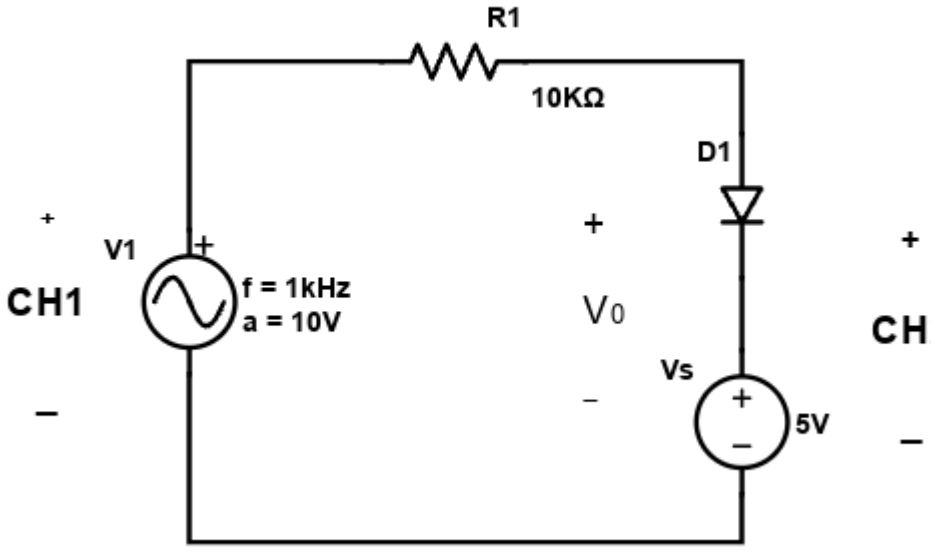


Fig: Clipping Positive Circuit

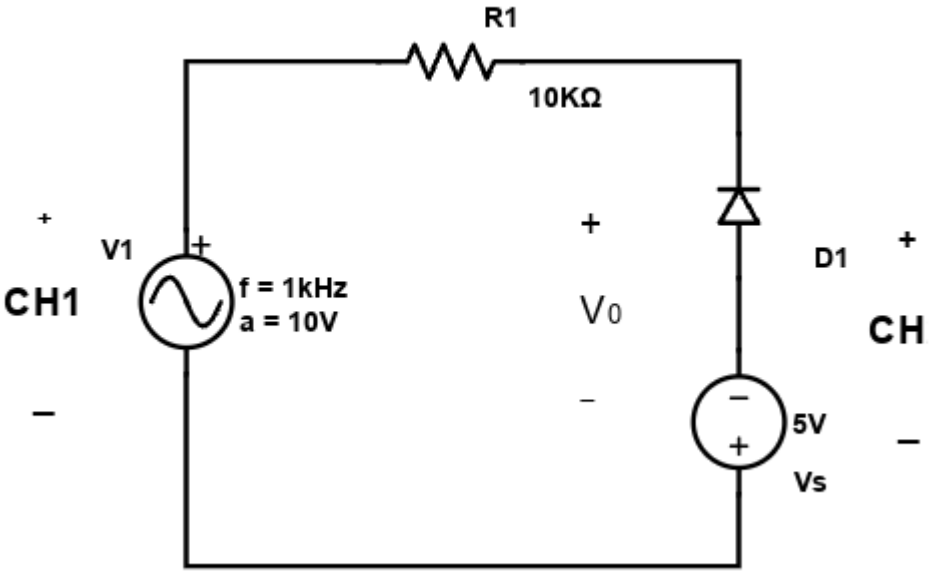


Fig: Clipping Negative Circuit

Data:

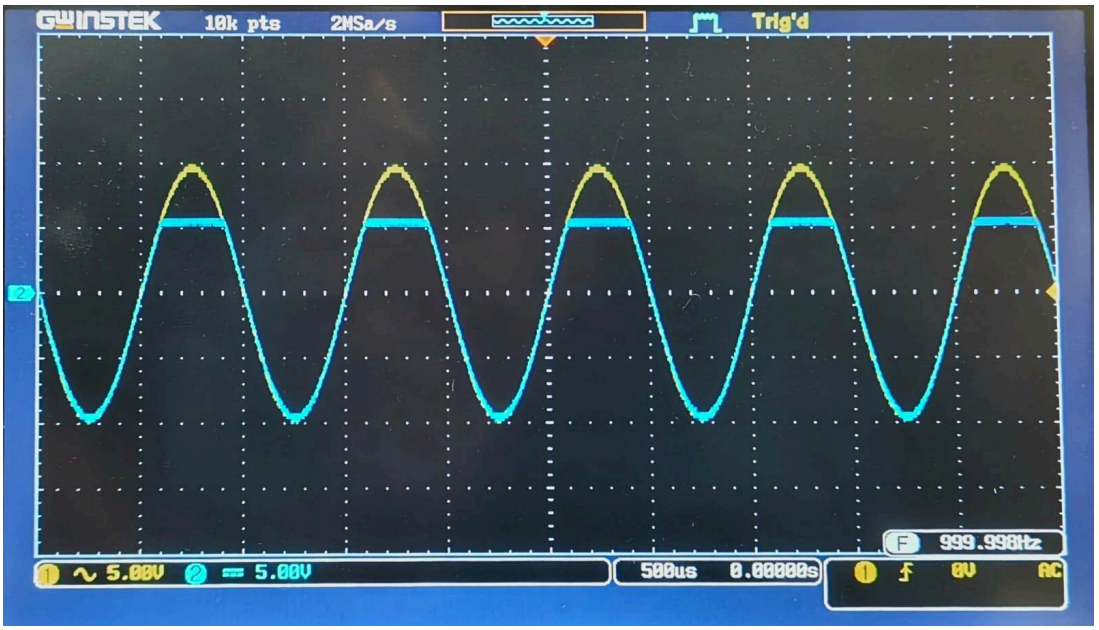


Fig: Input and Output Waveforms of a Positive Clipping Circuit

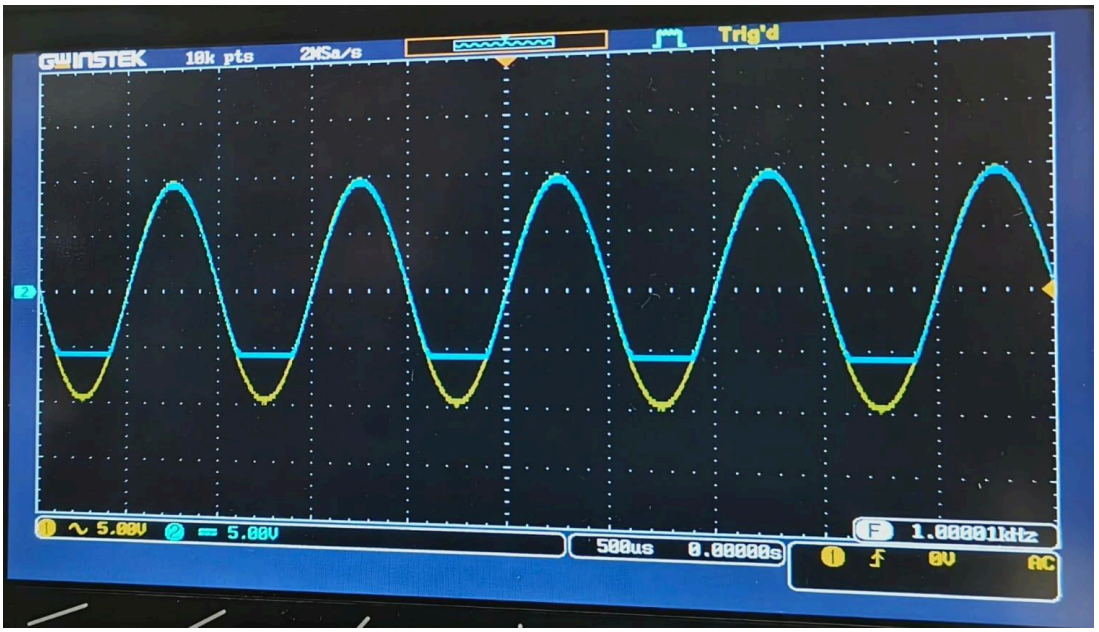


Fig: Input and Output Waveforms of a Negative Clipping Circuit

Clamping circuit:

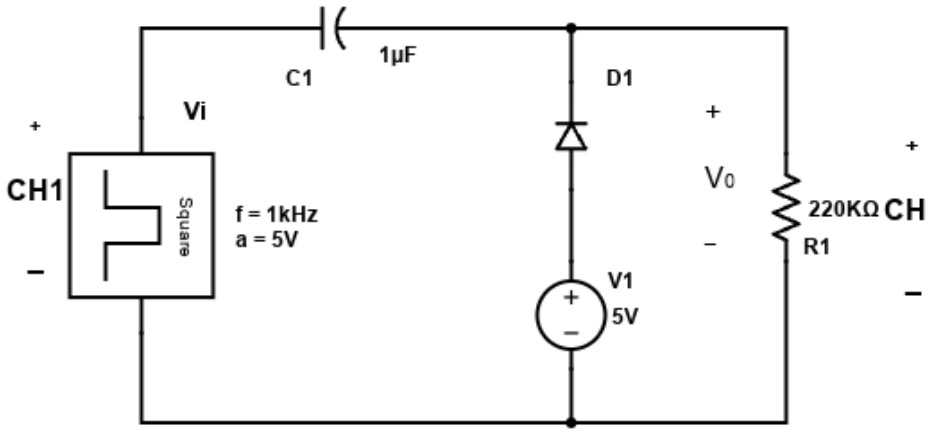


Fig: Clamping Positive Circuit

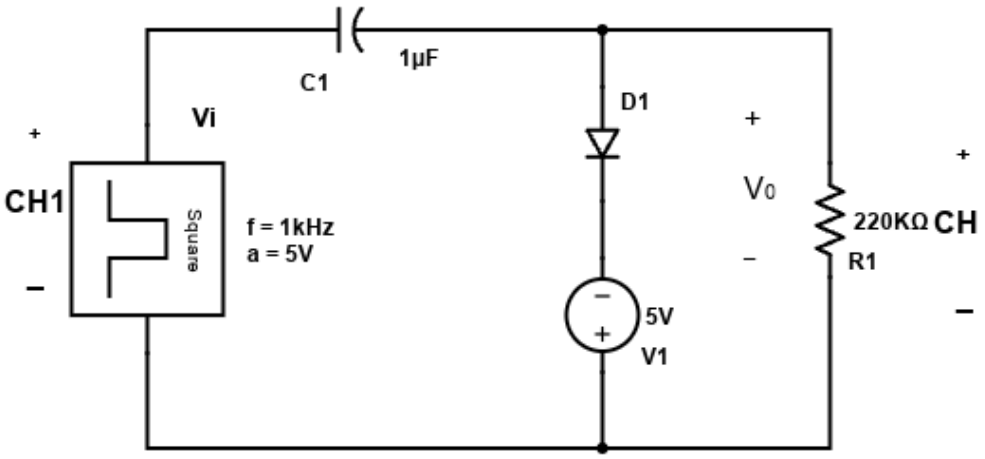


Fig: Clamping Negative Circuit

Data:

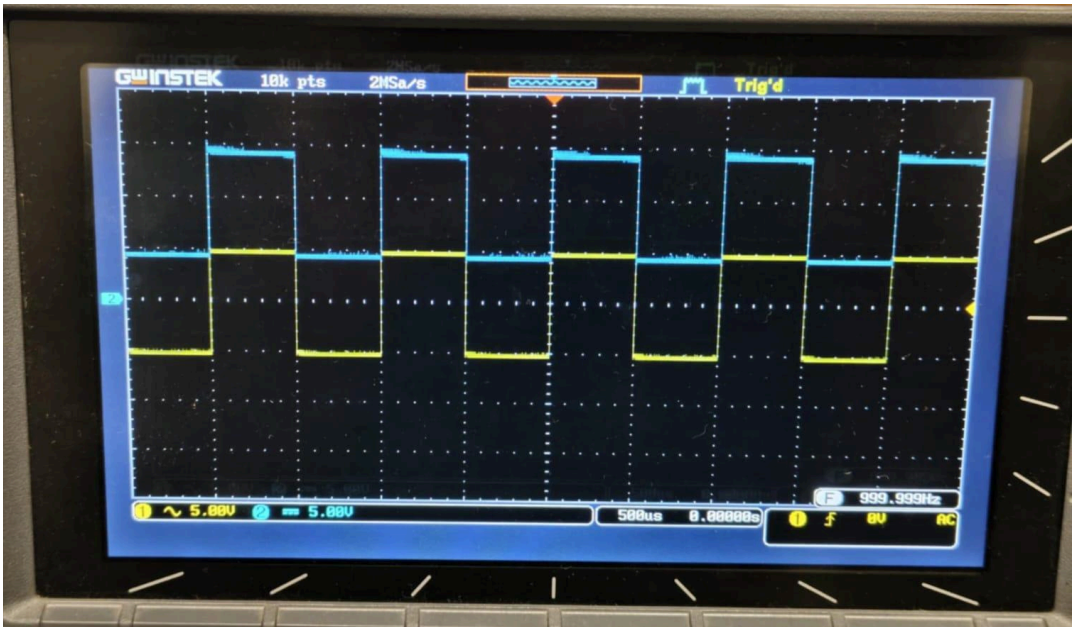
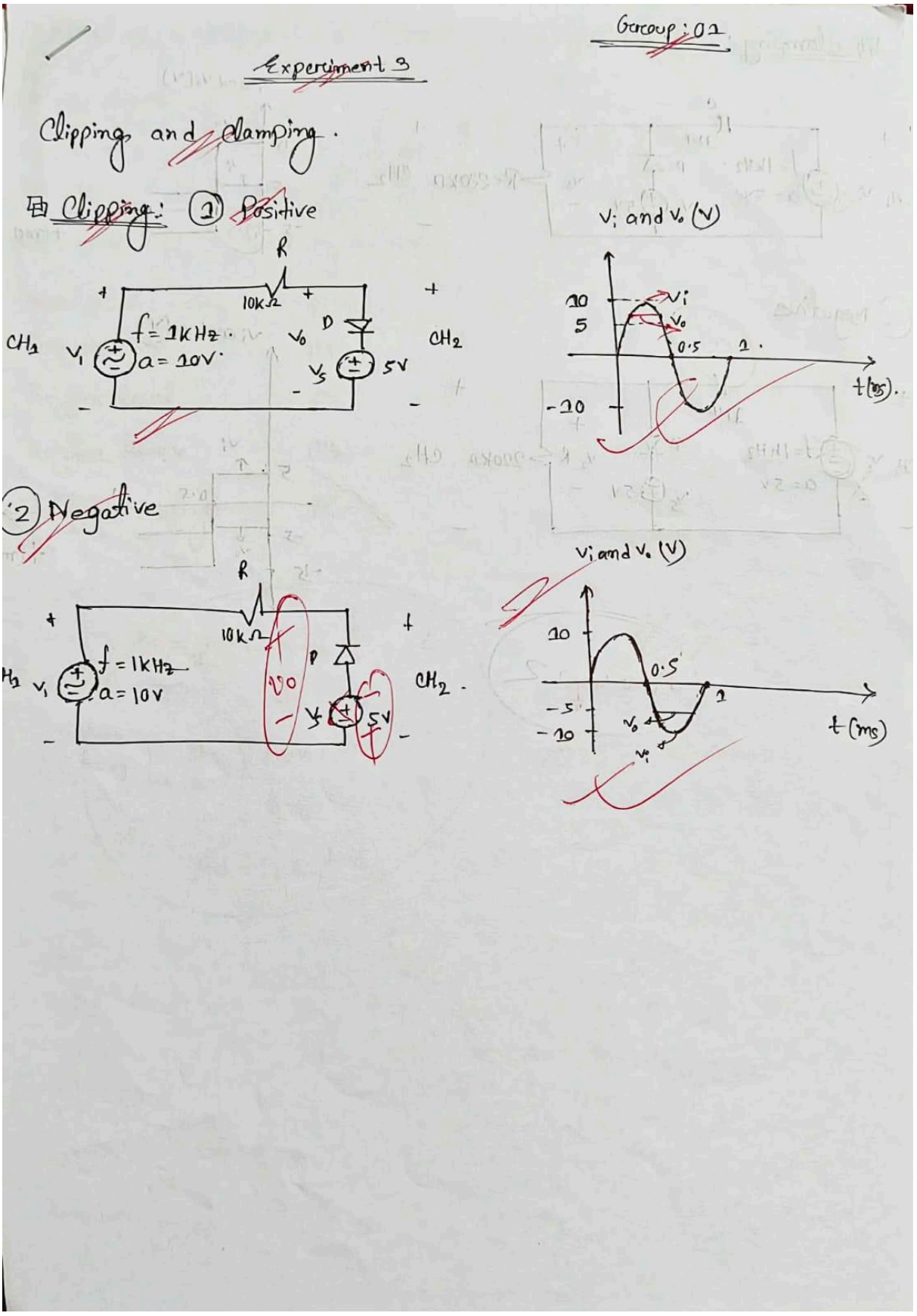


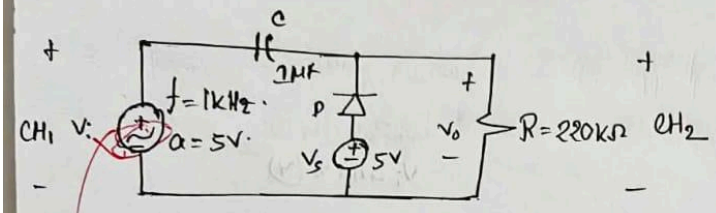
Fig: Input and Output Waveforms of a Positive Clamping Circuit

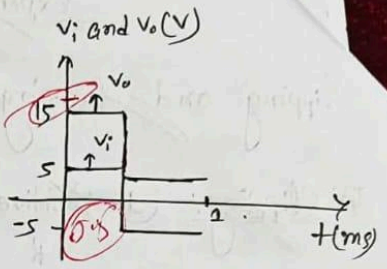
Fig: Input and Output Waveforms of a Negative Clamping Circuit

Appendix:

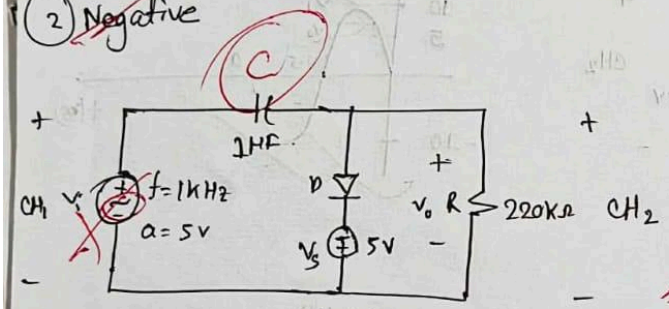

Group: 01
Experiment 3
Clipping and clamping.
Clipping: (1) Positive
R
10kΩ
f = 1kHz
a = 10V
D
5V
CH1
CH2
Vi and Vo (V)
10
5
-10
0.5
1
t(ms)
(2) Negative
R
10kΩ
f = 1kHz
a = 10V
D
5V
CH1
CH2
Vi and Vo (V)
10
-5
-10
0.5
1
t (ms)

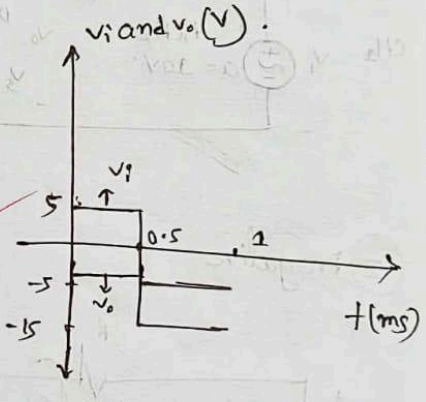
Clamping : ① Positive





② Negative





Group 2

Experiment 3 Oscilloscope Settings.

	CH_1	CH_2
Probe Switch	1X	1X
Zero Line	X-axis	X-axis.
AC / DC	AC	DC.
VOLTS/DIV	5V	5V.
Time/DIV	0.5ms.	
Trigger Mode.	ATO.	
Trigger Level	0V.	
Trigger Source	CH_2.	
Trigger Coupling	AC.	

10/10

10/10

Experiment 2
↓
Full-Wave
↓
Assist

2025 - November - 6