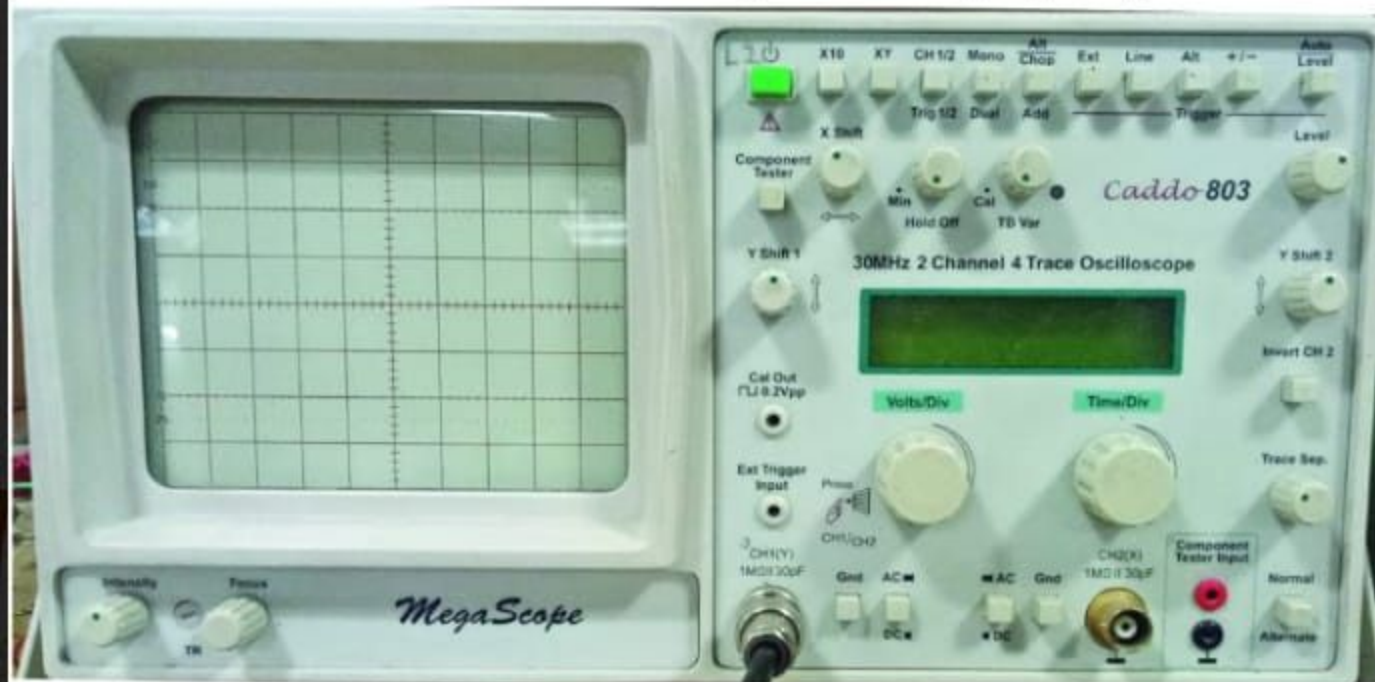


Front Panel of Cathode Ray Oscilloscope (CRO)



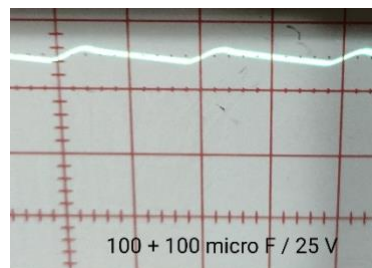
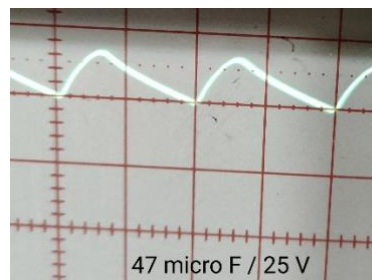
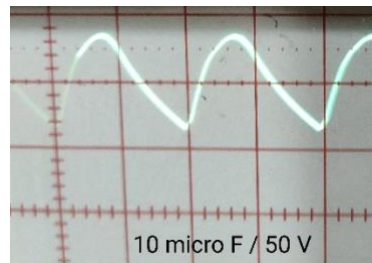
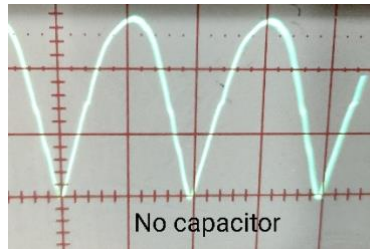
**B.E. I Year,
E-2 , 2019-20**

(Electronics Lab)

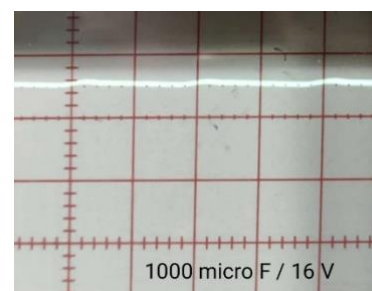
**Guided by:
C. S. Srivastava Sir**

Full Wave Rectifier Bridge Rectifier

No capacitor
Pulsating D.C.



Filtered D.C.

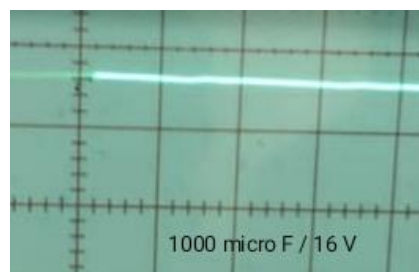
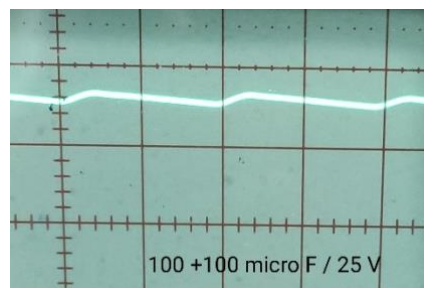
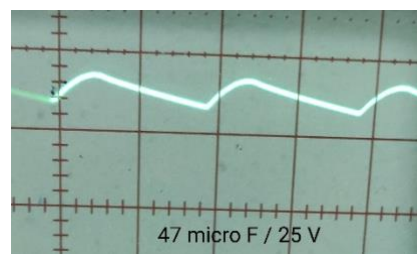
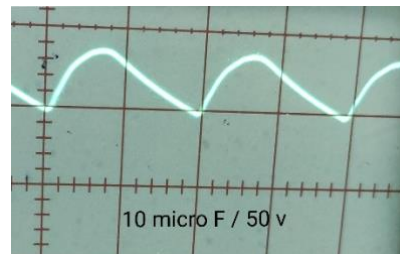
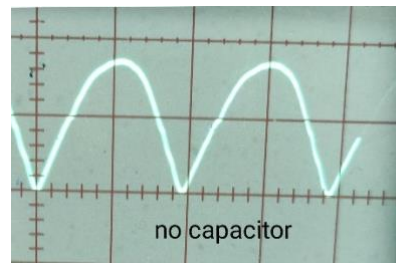


Guided by C.S. Srivastava

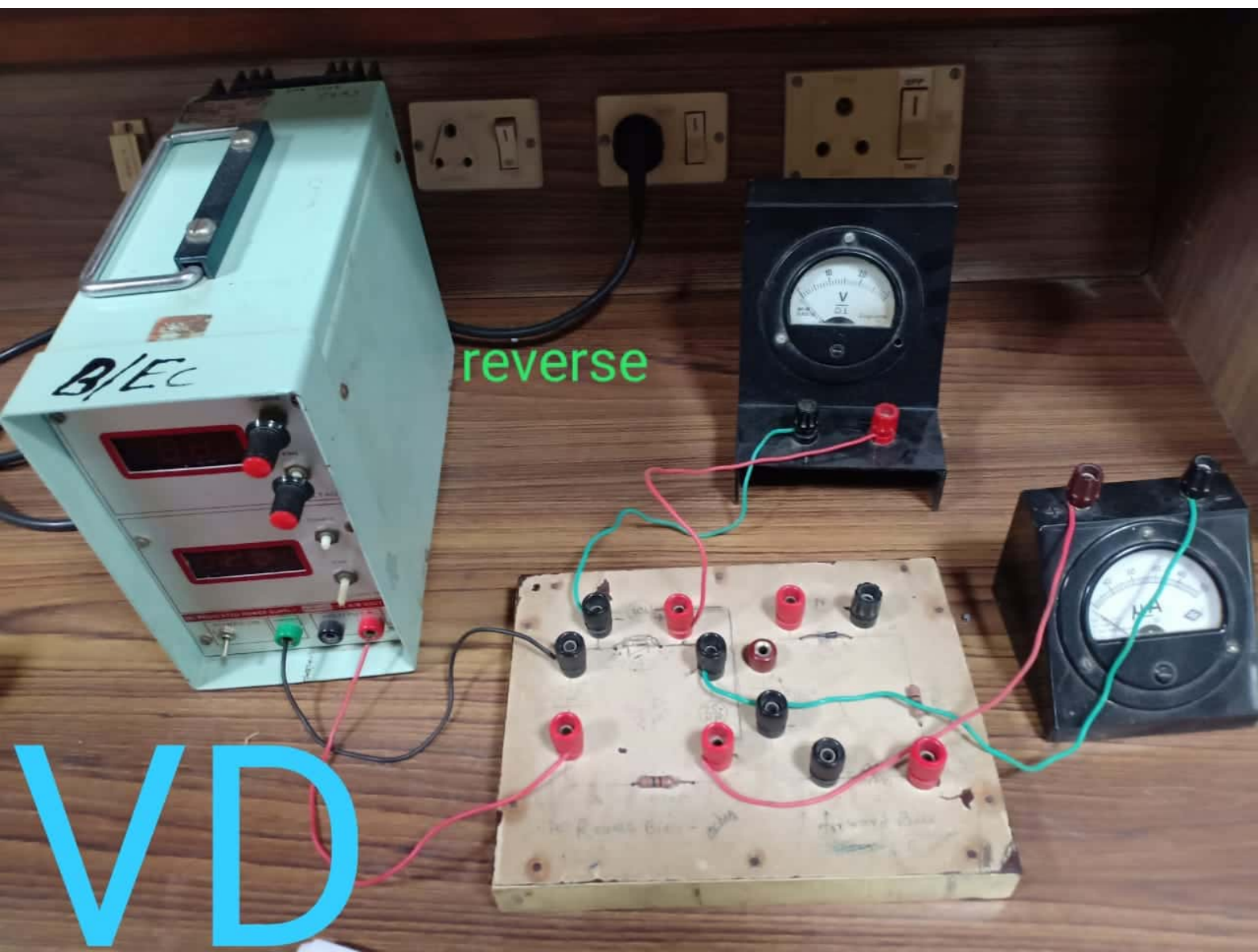
Year-BE 1st year (2019-20)
Group- E2

Full Wave Rectifier Centre Tap Transformer

No capacitor
Pulsating D.C.



Filtered D.C.





VD

BJT





VD

FET





zener diode

VD

EXPERIMENT NO-5

AIM: To study the characteristics of zener diode (ZD) using a regulated power supply (0-30V), zener diode, ammeter (0-50mA), voltmeter (0-50V), and a breadboard.

THEORY: A zener diode is a semiconductor device that operates in the reverse breakdown region. It is used to maintain a constant voltage across its terminals. The breakdown voltage is determined by the doping concentration and the physical structure of the diode. When the reverse voltage is increased beyond the breakdown voltage, the current increases rapidly, and the voltage across the diode remains nearly constant.

OBSERVATION TABLE

S. No.	V _Z (V)	I _Z (mA)	V _Z (V)	I _Z (mA)
1.	0	0	2.2	0.2
2.	1	0.2	2.5	0.5
3.	2	0.5	2.8	1
4.	3	0.8	3.2	2
5.	4	1.2	3.5	3
6.	5	1.5	3.8	4
7.	6	2	4.2	5
8.	7	2.5	4.5	6
9.	8	3	4.8	7
10.	9	3.5	5.2	8