	COLLEGE OF COMPUTING AND INFORMATION SCIENCES		
	Final Assessment of Lab Exam (Spring 2021 Semester)		
Class Id	106293	**Course Title**	BASIC ELECTRONICS LAB
Program	BSCS	**Campus / Shift**	MAIN MORNING
Date	20-04-2021	**Total Marks**	20
Duration	2.5 hours	**Faculty Name**	M.HARIS
Student Id	12113	**Student Name**	Shahmeer khan
Code			

Instructions:

- Fill out your Student ID and Student Name in above header.
- Do not remove or change any part question paper.
- Write down your answers with title "Answer for Question# 00".
- Handwritten text or image should be on A4 size page with clear visibility of contents.
- In case of CHEATING, COPIED material or any unfair means would result in negative marking or ZERO.
- **Caution:** Duration to perform Final Assessment is **02 hours only and 30 mins** is given to cater all kinds of odds in submission of Answer-sheet. **Therefore, if you failed to upload answer sheet on LMS (in PDF format) within 2.5 hours limit, you would be considered as ABSENT/FAILED.**

Q NO 1: IDENTIFY & SIMULATE THE FOLLOWING CIRCUIT AS SHOWN IN FIGURE #1 FOR CURRENT, VOLTAGE AND POWER DISSIPATION OF EACH RESISTOR OF THE CIRCUIT, IN WHICH FOLLOWING RESISTORS VALUES ARE: (10)

Ra = 1ST DIGIT OF YOUR STUDENT ID IN OHM (IF 0 THAN TAKE 1 k Ω)
Rb = 2ND DIGIT OF YOUR STUDENT ID IN OHM (IF 0 THAN TAKE 1 k Ω)
Rc = 3RD DIGIT OF YOUR STUDENT ID IN OHM (IF 0 THAN TAKE 1 k Ω)
Rd = 4TH DIGIT OF YOUR STUDENT ID IN OHM (IF 0 THAN TAKE 1 k Ω)
Re = 5TH DIGIT OF YOUR STUDENT ID IN OHM (IF 0 THAN TAKE 1 k Ω)

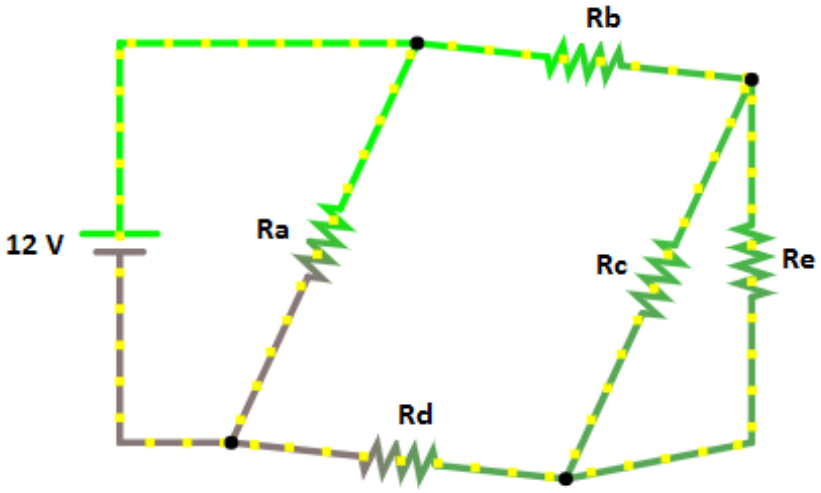


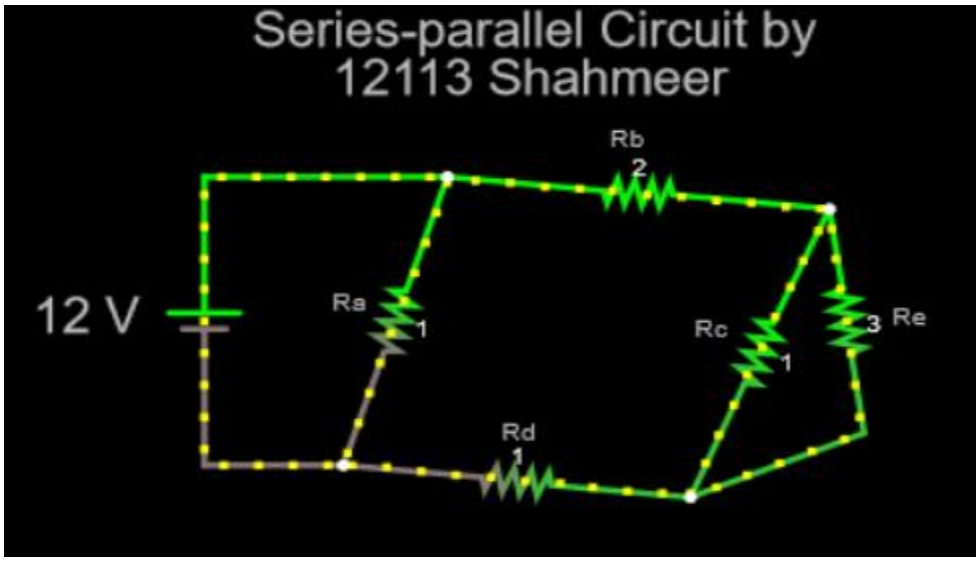
FIGURE #1

AND FILL THE TABLE #1 AS MENTION BELOW WITH THE DATA AND INSERT 7 SCREENSHOTS:

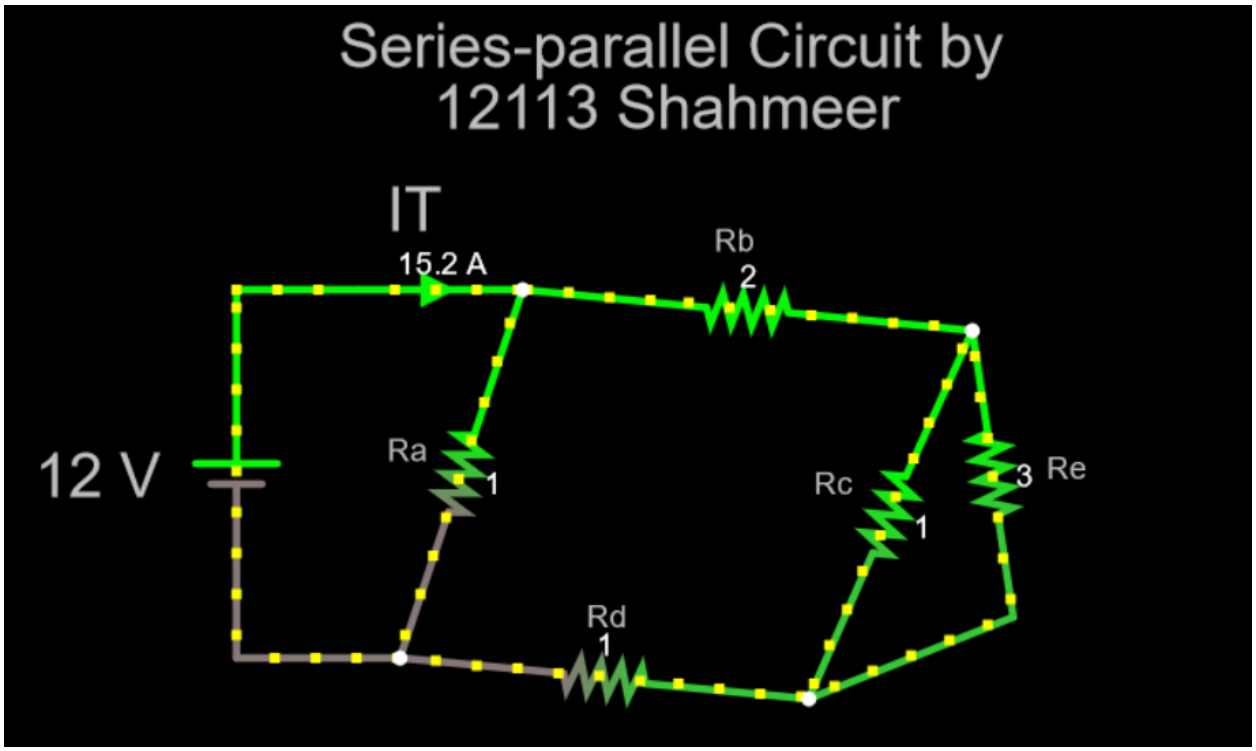
RESISTANCE	POWER(W)	VOLTAGE(V)	CURRENT(AMP)
Ra	Pa=12Vx12A =144 W	12 V	12 A
Rb	Pb=6.4Vx3.2A =20.48 W	6.4 V	3.2 A
Rc	Pc=2.4Vx2.4A =5.76W	2.4 V	2.4 A
Rd	Pd=3.2Vx3.2A	3.2 V	3.2 A

	=10.24W		
Re	Pe=2.4Vx0.8A =1.92W	2.4 V	0.8 A
RT= 789.5 m ohms.			
IT= 15.2 Amperes.			

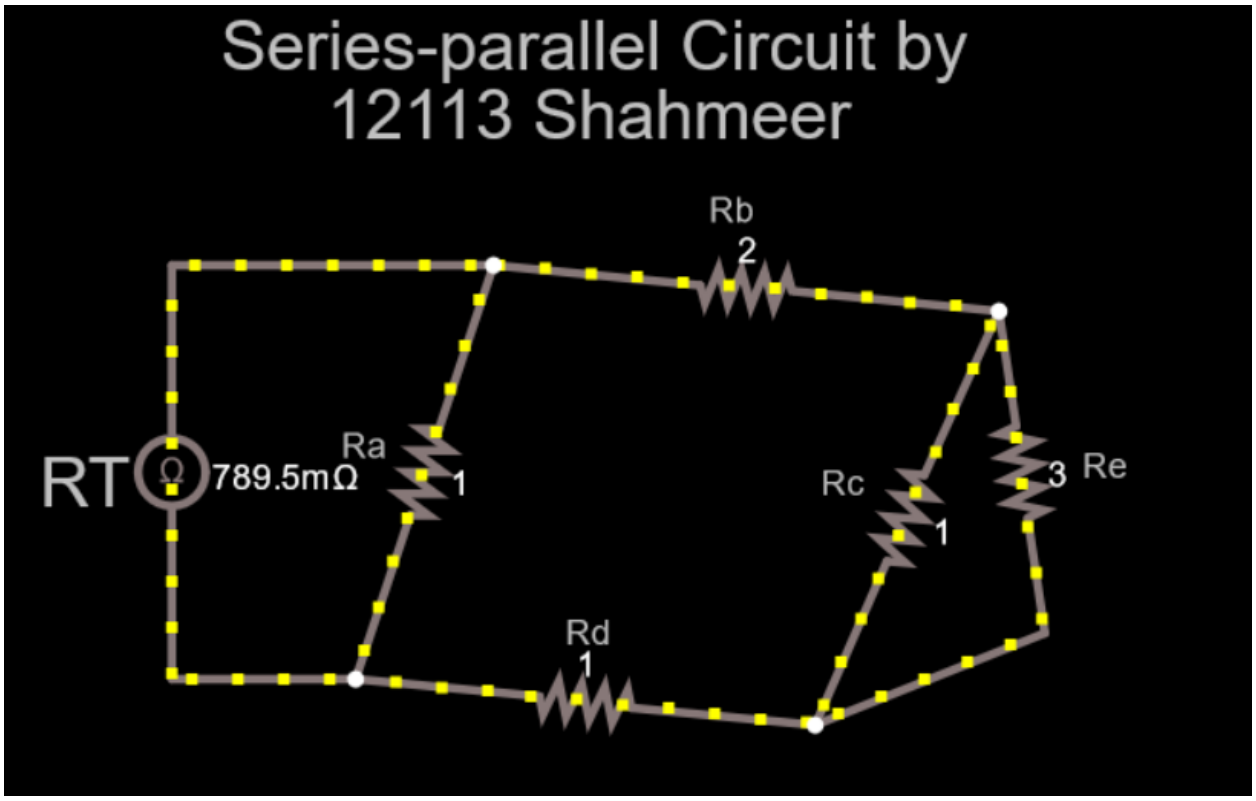
Circuit Screenshot:



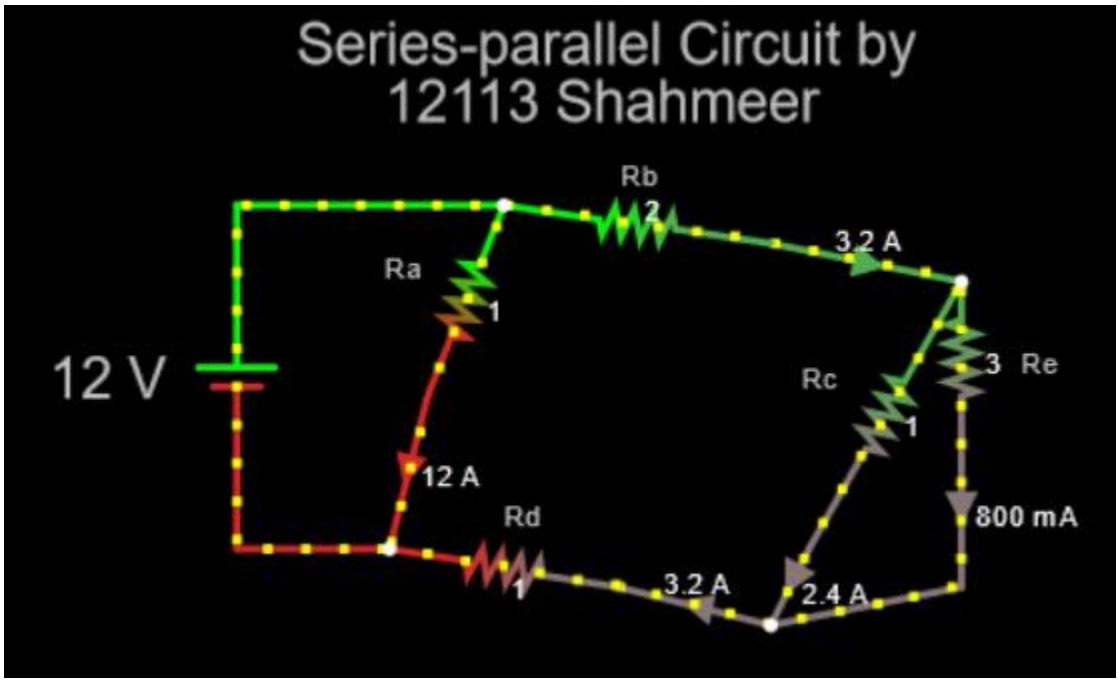
IT Screenshot:



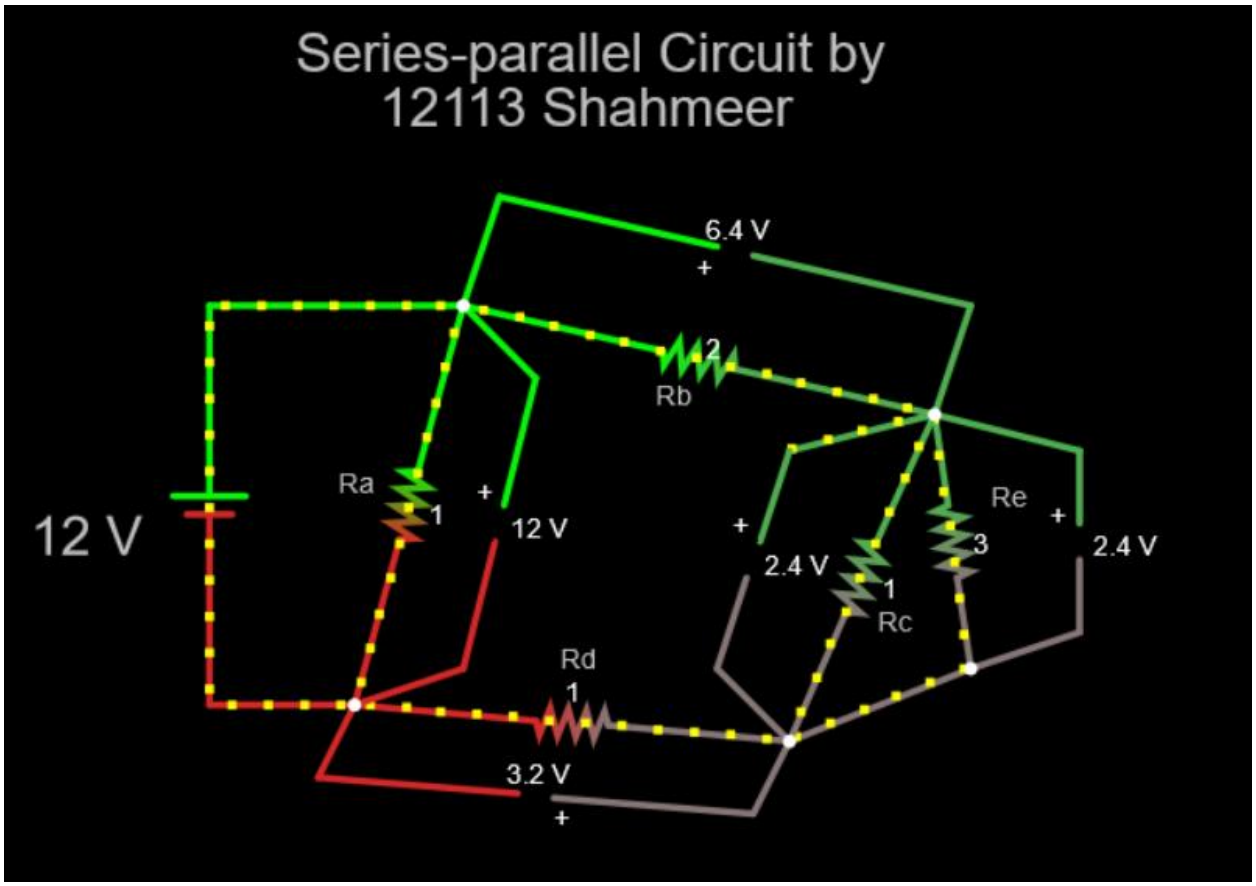
RT Screenshot:



Current Measurement Screenshot:



Voltage Measurement Screenshot:



Link:

https://tinyurl.com/yh4vmbpu

Q NO 2: SIMULATE THE FOLLOWING CIRCUIT AS SHOWN IN FIGURE #2:

(10)

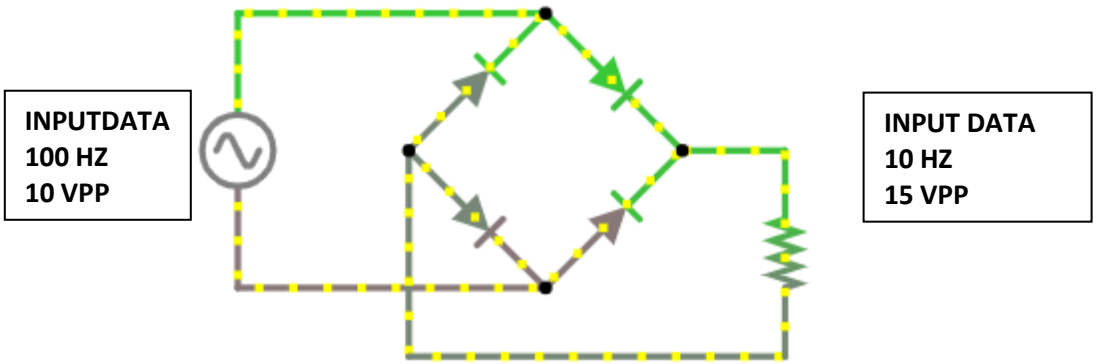
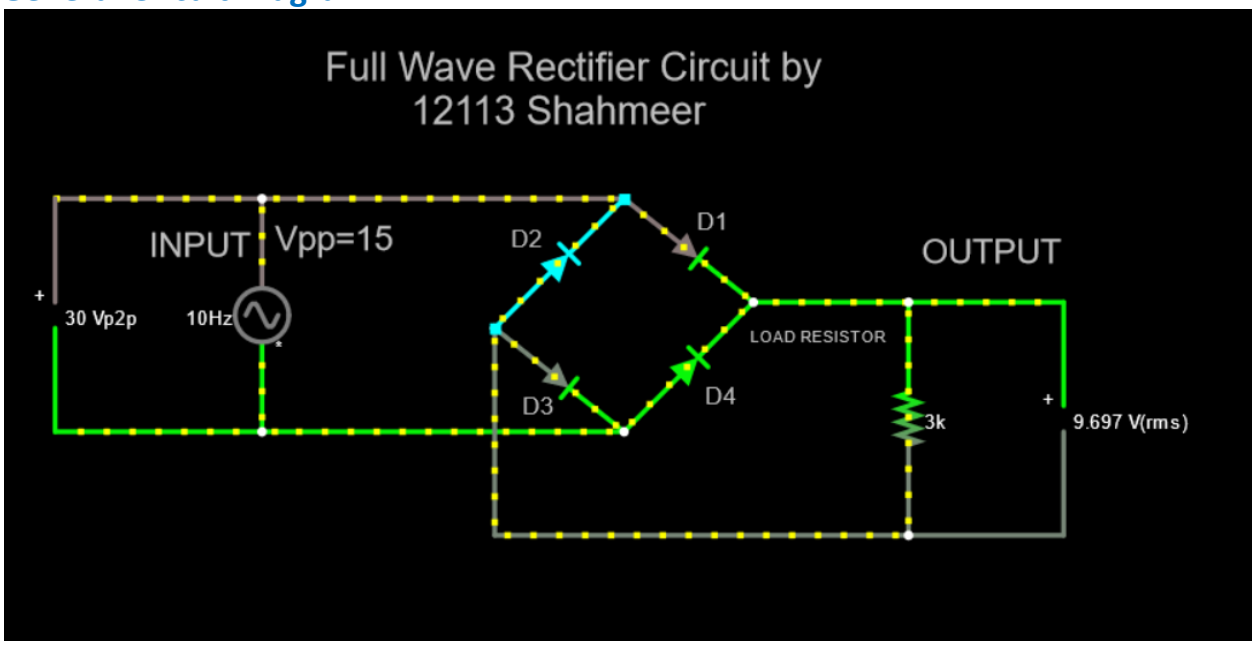


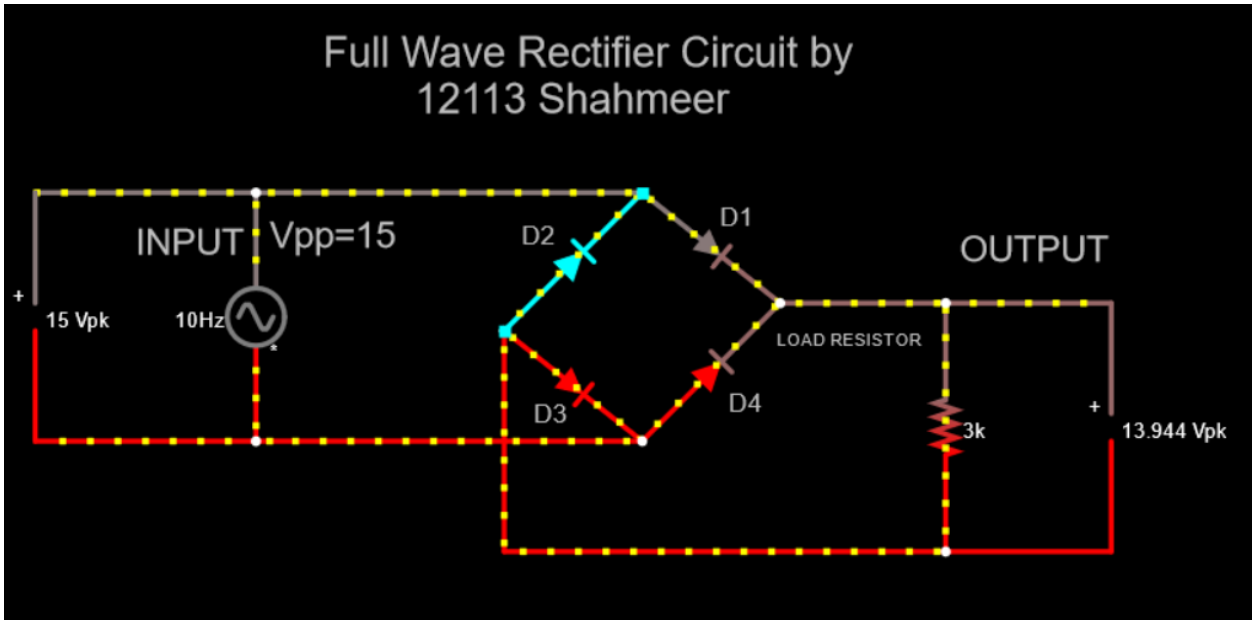
FIGURE #2

- **CALCULATE VP, VRMS & V AVG OF INPUT VOLTAGE AND OUTPUT RECTIFIED VOLTAGE ALSO INSERT THE SNAPS OF INPUT & OUTPUT WAVE FORM WITH THE CIRCUIT MUST BE CLEARLY SHOWN.**

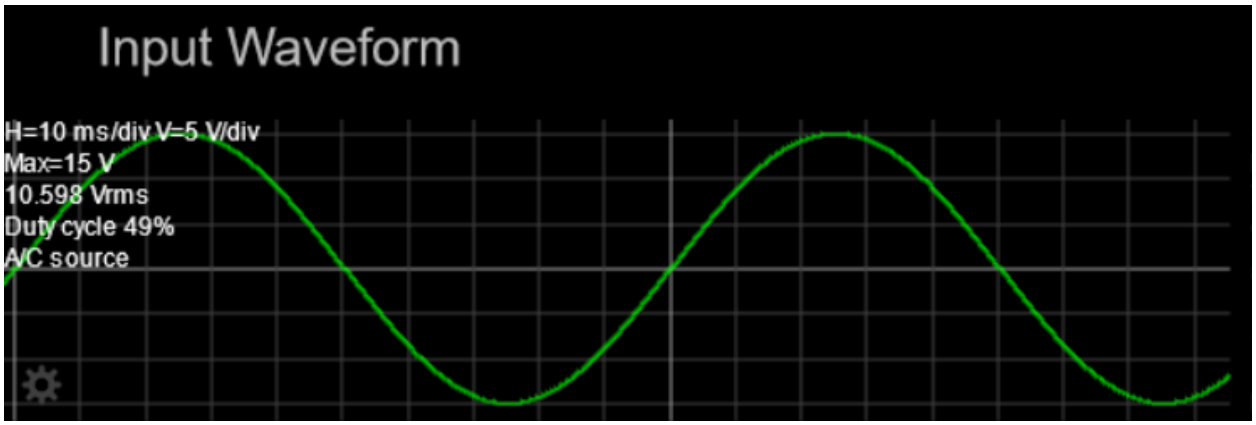
General Circuit Diagram:



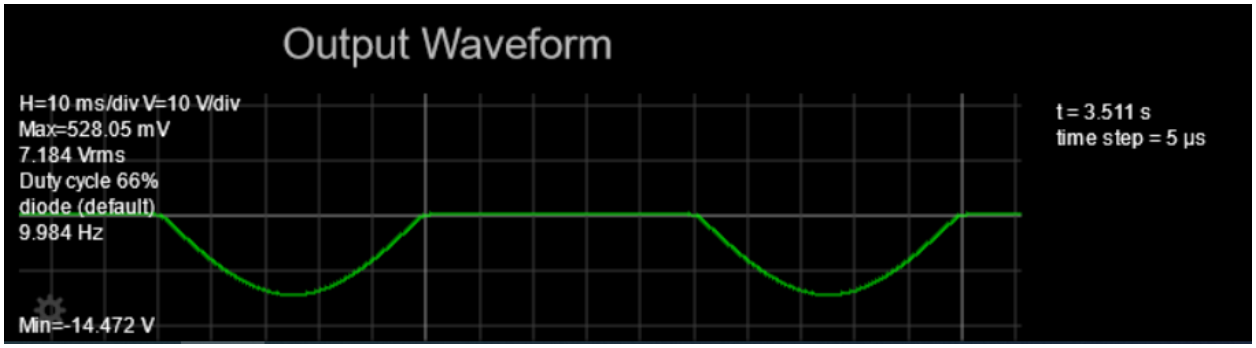
Peak Voltage Circuit Diagram:



Input Waveform:



Output Waveform:



VP(in)=_____15 V_____

Vrms(in)=_____10.598 V_____

V avg(in)=_____14.535 V_____

VP(out)=_____13.944 V_____

Vrms(out)=_____9.697 V_____

DIODE IS USED FOR _____ to allow electric current to pass in one direction_____ IN THE CIRCUIT.AND THIS CIRCUIT IS CALLED _____ Half wave or Full Wave Rectifier Circuit _____.

Link:

https://tinyurl.com/yjhr8s54