Started on	Thursday, 18 January 2024, 2:00 PM
State	Finished
Completed on	Thursday, 18 January 2024, 2:10 PM
Time taken	9 mins 54 secs
Marks	2.00/4.00
Grade	**5.00** out of 10.00 (**50**%)

Question 1

Incorrect

Mark 0.00 out of 1.00

1. Given is a circuit of bridge rectifier made using 4 Silicon diodes. The Silicon diodes have a cut-in voltage of 0.7 V but are **ideal** otherwise. The peak value of voltage drop appearing across the 4.7 KΩ resistor in Volts (V) is equal to .
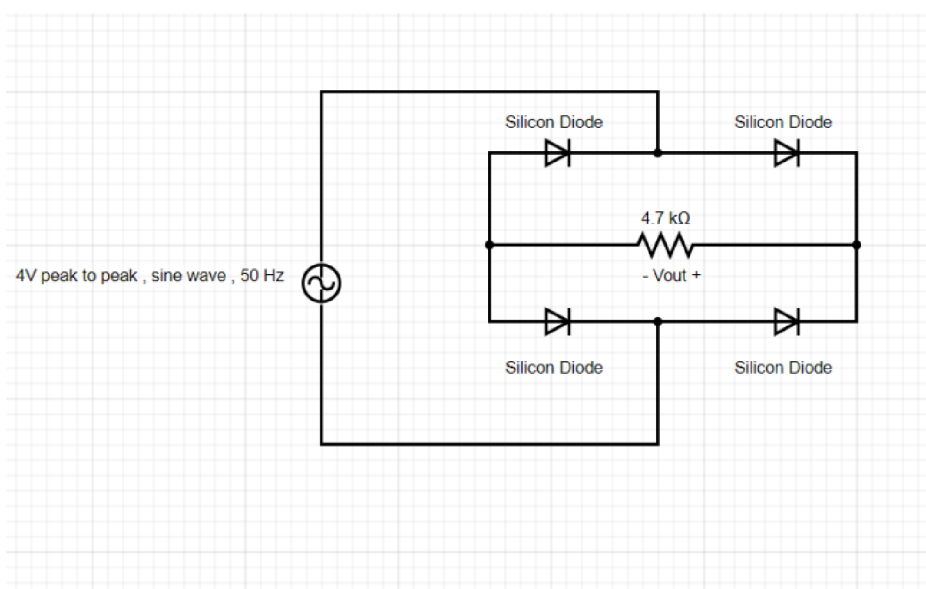
Answer: 1.2

The correct answer is: 0.6

Question 2

Correct

Mark 1.00 out of 1.00

2. An Oscillator circuit has been designed using an **Ideal** Op-Amp and **Ideal** diodes as shown in the figure. The Upper Trip Point and Lower Trip Point for the circuit in Volts (V) **respectively** are .
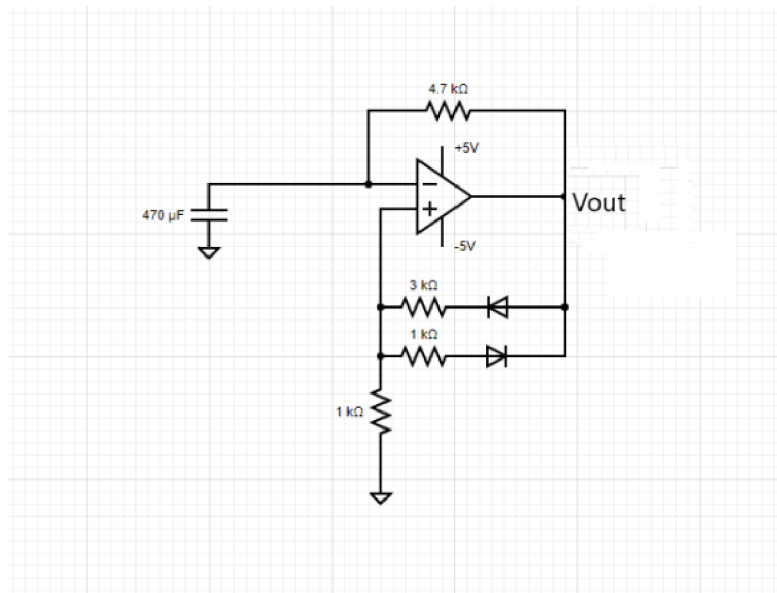

Figure 2: Oscillator circuit

○ a.   1.25 and -1.25

○ b.   -2.5 and 1.25

◉ c.   1.25 and -2.5

○ d.   2.5 and -2.5

Your answer is correct.

The correct answer is: 1.25 and -2.5

Question 3

Incorrect

Mark 0.00 out of 1.00

3. The figure shows a circuit designed using an Ideal Op-Amp. The Silicon diode used in the circuit has a cut-in voltage of 0.7 V but is otherwise **ideal**. The peak value of the voltage appearing across the 4.7K Ω resistor in Volts (V) is equal to .
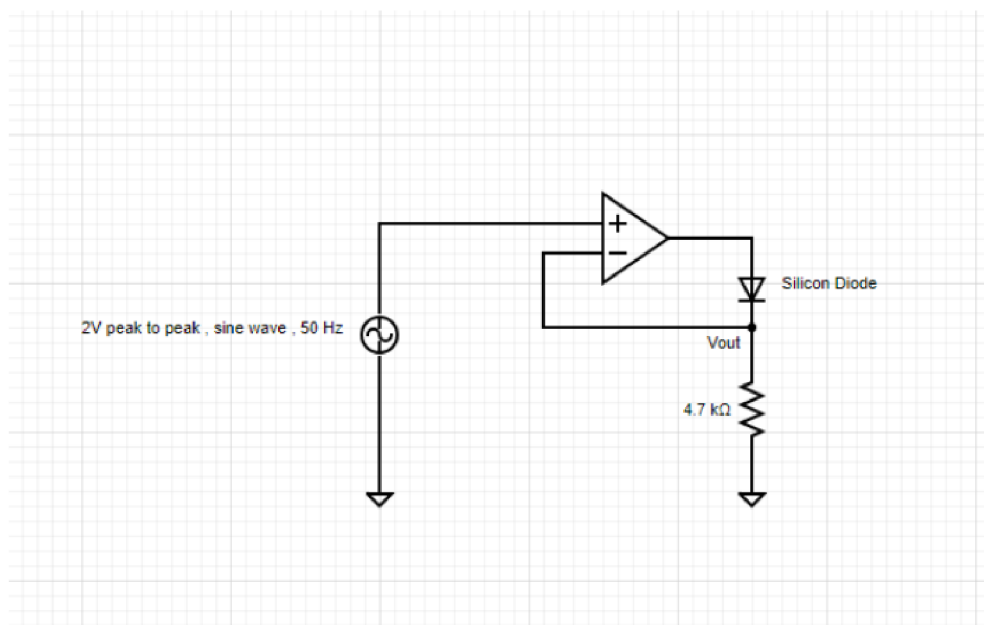

Figure 3: A very nice circuit

Answer: 2

The correct answer is: 1

Question 4

Correct

Mark 1.00 out of 1.00

4. The figure shows a circuit designed using an Ideal Op-Amp, a Germanium Diode and a 470 uF capacitor. The Germanium diode used in the circuit has a cut-in voltage of 0.3 V but is otherwise **ideal**. The V_{out} in **steady state** is .

Germanium Diode

Vout

2V peak to peak , sine wave , 50 Hz

470 μF
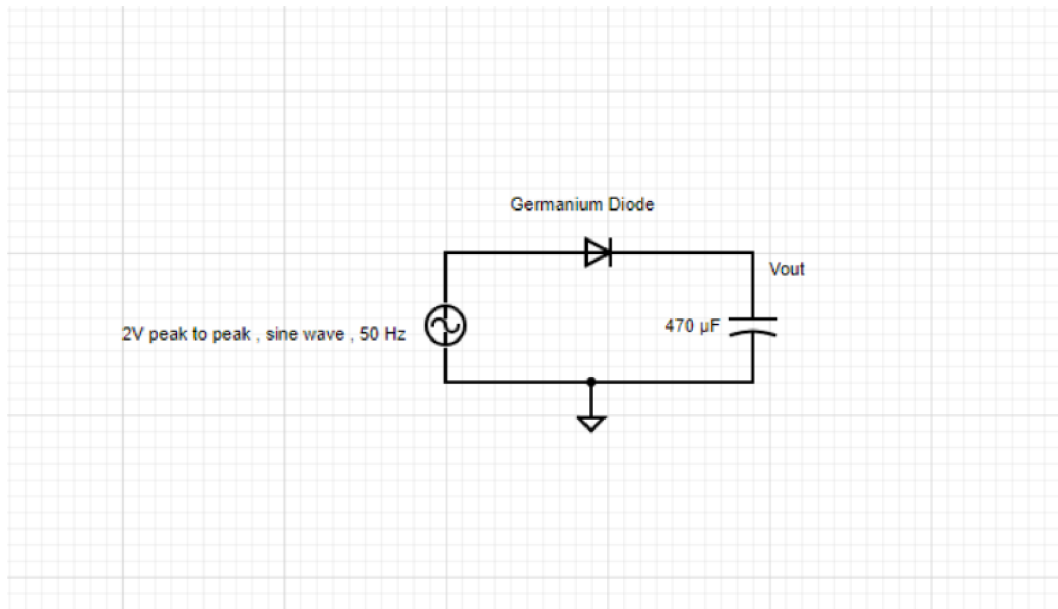
- a.   A **D.C.** signal with some negative amplitude
- b.   Positive Half Cycle of Sine Wave only.
- c.   Negative Half Cycle of Sine Wave only.
- ● d.   A **D.C.** signal with some positive amplitude.

Your answer is correct.

The correct answer is: A **D.C.** signal with some positive amplitude.

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