DATE

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Rayat Shikshan Sanstha's

Name of the college: Sadaguru Gadge Maharaj college, Karad

Subject: Electronics

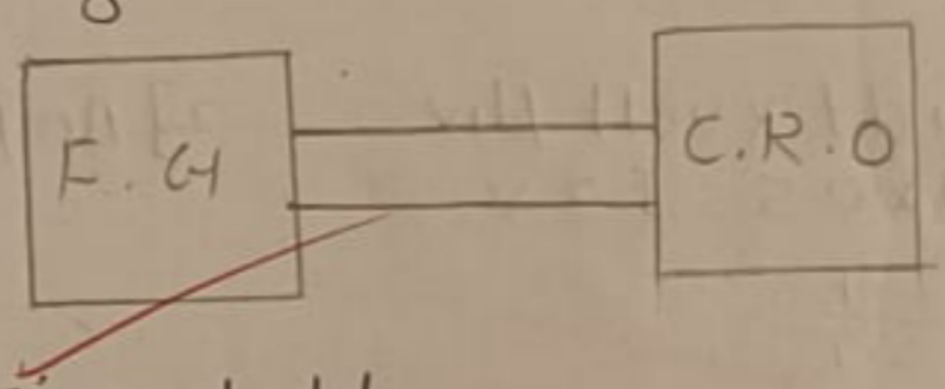
Expt. No. 2 | Name [redacted] Class: BCS-I Batch: Roll No.: [redacted]

Date 7/8/24 | Title of Expt.: Study of CRO

Aim - To study the use of C.R.O

Apparatus - Function generator C.R.O etc

circuit diagram -



observation table -

1] Amplitude Measurment - Frequency = 1 KHz

Obs No	Peack of Peack voltage (volt)	Volt/div	Amplitude = Peak to Peack voltage volt/div
1]	2.4	0.5 ms	1.2 V
2]	2.8	0.5 ms	9.4 V

2] Frequency Measurement -

Obs No	Given Frequency (Hz)	Wavelength (λ)	Time/div sec	T = λ x t sec	F = 1/2 Hz
1]	2 kHz	0.6	0.5 ms	0.3 ms	3.333 kHz
2]	3 kHz	0.4	0.5 ms	0.2 ms	5 kHz

Time Period (T) = No. of division on x-axis of one cycle x Time/div

$$\boxed{\text{Frequency} = (F) = \frac{1}{T}}$$

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Remarks

Signature

18/09/2024

Observation -
- CRO can be used to study different electrical signals.
- The CRO (cathode ray oscilloscope) is common laboratory instrument that provides accurate time & amplitude measurement of voltage signals over wide range of frequency

Result -
In amplitude measurement - Frequency constant then amplitude vary.

In frequency measurement - Give freqn is approximate equal to calculate freqn

Calculation -

1] Amplitude = height x volt/div
$= 2.4 \times 0.5 = 1.2 V$

Frequency $= f = \frac{1}{T}$

T = Peack to Peack (λ) x time/div

$= 0.6 \times 0.5 \times 10^{-3}$

$= 0.3 \times 10^{-3}$

$= \frac{1}{T} = \frac{1}{0.3 \times 10^{-3}}$

$= 3.333 \times 10^{3} Hz$

2] Amplitude = height x Volt/div
$= 2.8 \times 0.5$
$= 1.4$

Frequency $= f = \frac{1}{T}$

$T = \lambda \times t$

$= 0.4 \times 0.5$

$T = 0.2 ms$

$f = \frac{1}{T} = \frac{1}{0.2 \times 10^{-3}}$

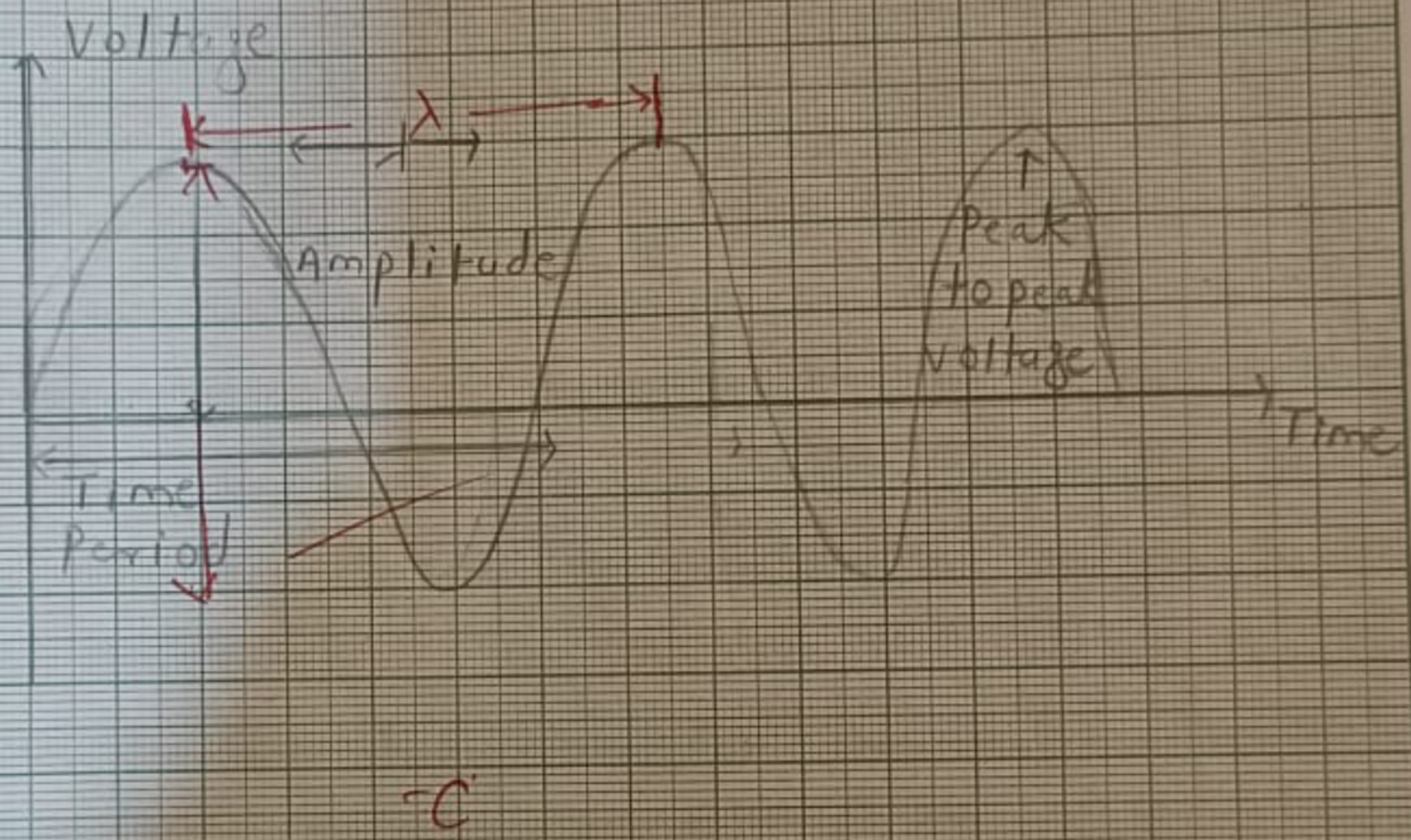
$= 5 kHz$

Shot on OnePlus
By sakshi

DATE

Study of CRO

wave Form =



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