

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) What is the difference between DC coupling and AC coupling?

2) Why are DC signals that change called pulse trains?

3) What are the differences between an analog and a digital oscilloscope?

4) What is the difference between an oscilloscope and a graphing multimeter?

Answer Key

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1) DC coupling allows the scope to display both AC and DC voltage signals whereas AC coupling allows the scope to display only AC voltage signals and blocks all DC signals.

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2) DC signals that change are called pulse trains because the voltage remains positive. Alternating current (AC) voltage signals are both positive and negative voltage. Therefore, when a DC voltage signal changes from high to low, the most commonly used term to describe that type of signal is a pulse train.

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3) An analog oscilloscope shows voltage changes as they occur and the waveform cannot be captured or saved. A digital storage oscilloscope (DSO) records the voltage measurements as a series of dots and then connects the dots to display a waveform, which can be stored and viewed later after the event.

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4) The difference between an oscilloscope and a graphing multimeter is that a graphing multimeter (GMM) simply displays the reading of the meter on a graph, whereas an oscilloscope displays the voltage directly and faster.

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