Assignment 12

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Note: If you have any doubts/queries regarding this quiz, please ask it in the forum well before the submission deadline. We will be happy to answer your queries.

1) We want to see two complete cycles of a 50 Hz sinewave in an CRO. What should be the frequency (in Hz) of the time-base signal?

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 25

2) COMMON DATA FOR Q.2 TO Q.4:

Two sine waves of different frequencies are connected to a two channel oscilloscope and the frequency of the signal applied to the X axis is 60 Hz.

If the display in X – Y mode looks like the figure below, what is the frequency (in Hz) of the signal applied to the Y axis?

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 120
3) If the display in X – Y mode looks like the figure below, what is the frequency (in Hz) of the signal applied to the Y axis?

![Graph](image)

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 90

4) If the display in X – Y mode looks like the figure below, what is the frequency (in Hz) of the signal applied to the Y axis?

![Graph](image)

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 30

5) In X – Y mode of an oscilloscope if two voltages with same frequency and same amplitude are applied to the two channels, such that the phase angle between the two voltages is 90° then the curve seen on the screen will be

a. Straight line
b. Circle
c. Ellipse with its major axes parallel to the X and Y axes
d. Ellipse with its major axes at 45° to the X and Y axes

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

d.

6) A DSO can sample 10⁶ samples per second. What is the maximum frequency (in MHz) of a signal that can be monitored in this DSO?

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 50
7) **COMMON DATA FOR Q.7 TO Q.9:**

![Circuit Diagram]

Consider the emitter-follower voltmeter circuit in the figure, $V_{BE} = 0.7 \, V$, $\beta = 99$

Calculate a suitable resistance $R_z$ (in $\Omega$) to give full-scale deflection when $E = 5 \, V$?

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 1050, 1250

2 points

8) Now if $E = 2.5 \, V$, how much deflection (in % of full-scale) will be observed?

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 39.86, 43.86

2 points

9) Determine the voltmeter input resistance (in $k\Omega$) when $E = 5 \, V$.

[Please enter only the numeric value without any unit.]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 240, 260

2 points

10) ![Circuit Diagram]

Consider the linear ohmmeter circuit shown in the figure. If the electronic voltmeter reading is $3 \, V$, then the value of $R_x$ is (in $k\Omega$)?

[Please enter only the numeric value without any unit.]
No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 6.9