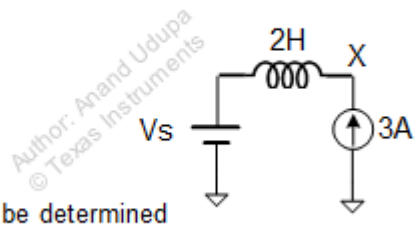
Quiz 6

* Full Name

* WISH Participant ID

601. Vs=4.u(t). Voltage at Node X at t=1sec is:
(a) 3V
(b) 1V
(c) Infinity
(d) 1.5V
(e) 6V
(f) 0V
(g) 4V
(h) Cannot be determined

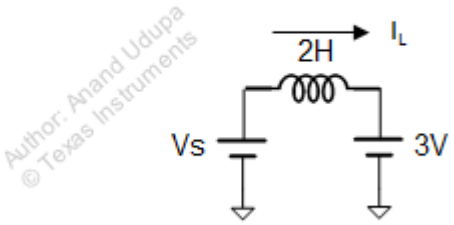


Answer the Question 601

- ◯ a
- ◯ b
- ◯ c
- ◯ d
- ◯ e
- ◯ f
- ◯ g
- ◯ h

602. Vs=3+4.u(t). Initial current through inductor (at t=0-) is 1A. Current through inductor at t=5sec is:

(a) 10A
(b) 11A
(c) 5A
(d) 0A
(e) 1A
(f) 21A
(g) 6A
(h) ∞A

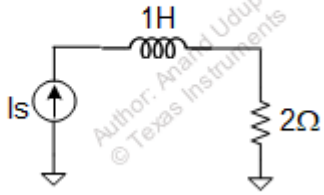


Answer the Question 602

- ◯ a
- ◯ b
- ◯ c
- ◯ d
- ◯ e
- ◯ f
- ◯ g
- ◯ h

608. Is=3.r(t)-3.r(t-5). Initial current through inductor is 0. Average power provided by the current source between t=0sec and t=4sec is:

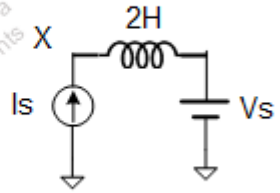
(a) 0V
(b) 50W
(c) 114W
(d) 18W
(e) 96W
(f) 132W
(g) 0W
(h) 72W



Answer the Question 608

- ◯ a
- ◯ b
- ◯ c
- ◯ d
- ◯ e
- ◯ f
- ◯ g
- ◯ h

609. Is=2.r(t) where r(t) is a ramp function. Vs=3.r(t). Voltage at Node X at time t=2.5sec is:
(a) 0V
(b) 11.5V
(c) 4V
(d) 2V
(e) 7V
(f) 5V
(g) 13.5V
(h) 9.5V



Answer the Question 609

- ◯ a
- ◯ b
- ◯ c
- ◯ d
- ◯ e
- ◯ f
- ◯ g
- ◯ h

611. An inductor of value 1 Henry is driven with a periodic voltage waveform source across it. The average current through the source in steady state is measured to be 1A. The same voltage source is then connected across a 1F capacitor. The average current through the voltage source is now equal to:
(a) 0 A
(b) 2 A
(c) 0.5 A
(d) 1 A
(e) 0.1 A
(f) 10 A
(g) 5 A
(h) Some key information is missing

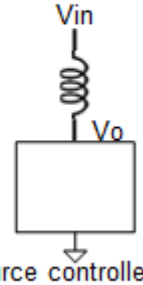
Answer the Question 611

- ◯ a
- ◯ b
- ◯ c
- ◯ e
- ◯ f
- ◯ g

◯ d ◯ h

612. An inductor is connected in series with a black box as shown below and the series combination is driven by a DC voltage source Vin. If the component inside the black box keeps the inductor current bounded, the black box cannot be which of the following components?

(a) Capacitor
(b) Resistor
(c) An ideal current source
(d) A voltage source equal to Vin
(e) Open circuit
(f) Reverse biased diode
(g) R||C
(h) A voltage controlled voltage source controlled by Vin with a gain of 2



Answer the Question 612

◯ a ◯ e

◯ b ◯ f

◯ c ◯ g

◯ d ◯ h

Done