

1. What is the period of an  $LC$  circuit with inductance  $L$  and capacitance  $C$ ?

- A)  $2\pi\sqrt{LC}$
- B)  $4\pi\sqrt{LC}$
- C)  $2\pi/\sqrt{LC}$
- D)  $4\pi/\sqrt{LC}$
- E)  $2\sqrt{LC}$

2. What is the angular frequency of an  $LC$  circuit?

- A)  $\sqrt{LC}$
- B)  $1/\sqrt{LC}$
- C)  $2\pi\sqrt{LC}$
- D)  $1/2\pi\sqrt{LC}$
- E)  $2\pi/\sqrt{LC}$

3. The function for current in an  $LC$  circuit best resembles a

- A) parabolic function
- B) hyperbolic function
- C) sine function
- D) exponential function
- E) linear function

4. As  $t \rightarrow \infty$ , the total energy in an  $LC$  circuit

- A) decreases exponentially
- B) decreases at a constant rate
- C) remains constant
- D) increases at a constant rate
- E) increases exponentially

5. In  $LC$  circuits which of the following act like short circuits?

- I. Capacitors initially
- II. Inductors initially
- III. Capacitors at equilibrium
- IV. Inductors at equilibrium

- A) I only
- B) II only
- C) I and III only
- D) I and IV only
- E) II and III only

6. In  $LC$  circuits which of the following act like open circuits?

- I. Capacitors initially
- II. Inductors initially
- III. Capacitors at equilibrium
- IV. Inductors at equilibrium

- A) I only
- B) II only
- C) I and IV only
- D) II and III only
- E) II and IV only

7. Which of the following is equivalent to a  $V \cdot s/A$ ?

- A) Ohm
- B) Henry
- C) Weber
- D) Tesla
- E) Farad

**Answer Key**  
**RL Circuits MC Questions [Mar 28, 2011]**

1.   A
  2.   B
  3.   C
  4.   C
  5.   D
  6.   D
  7.   B
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Name \_\_\_\_\_

Class \_\_\_\_\_

Date \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

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