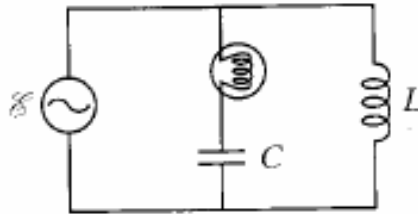
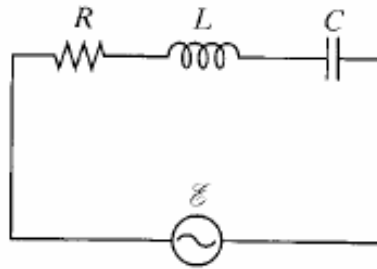


The light bulb has a resistance R , and the emf drives the circuit with a frequency ω . The light bulb glows most brightly at



1. very low frequencies.
2. very high frequencies.
3. the frequency $\omega = 1/\sqrt{LC}$.

For the RLC series circuit shown, which of these statements is/are true:



- (i) Potential energy oscillates between C and L .
 - (ii) The source does no net work: Energy lost in R is compensated by energy stored in C and L .
 - (iii) The current through C is 90° out of phase with the one through L .
 - (iv) The current through C is 180° out of phase with the one through L .
 - (v) All energy is dissipated in R .
1. (v)
 2. (ii)
 3. (i), (iv), and (v)
 4. (i) and (v)
 5. none of the above