
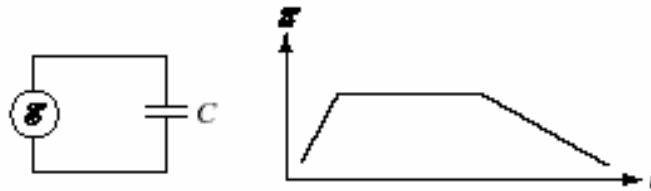
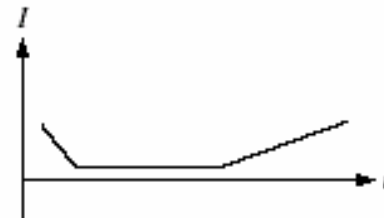


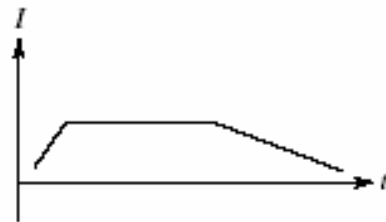
A capacitor is connected to a varying source of emf. Given the behavior of \mathcal{E} shown, the current through the wires changes according to: 



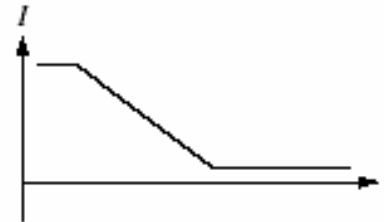
1



2




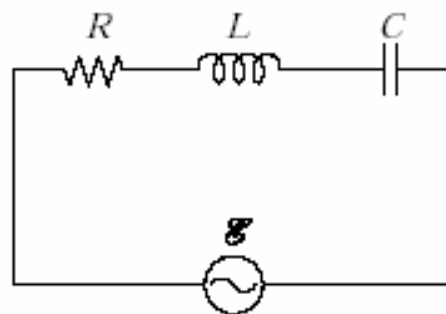
3



4

5. none of the above

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. all of them
 2. none of them
 3. (v)
 4. (ii)
 5. (i), (iv), and (v)
 6. (i) and (v)
 7. none of the above