
Change of magnetic field intensity/flux density and energy. Two linear inductors contain the same amounts of magnetic energy. If the magnetic field intensity (H) at every point in the first inductor becomes twice larger, while the magnetic flux density (B) at every point in the second inductor is halved, the energy stored in the first inductor in the new steady state is

- (A) $1/4$ of
- (B) $1/16$ of
- (C) 4 times
- (D) 16 times
- (E) the same as

that stored in the second inductor.

Solution: (D)

Answer: (D)