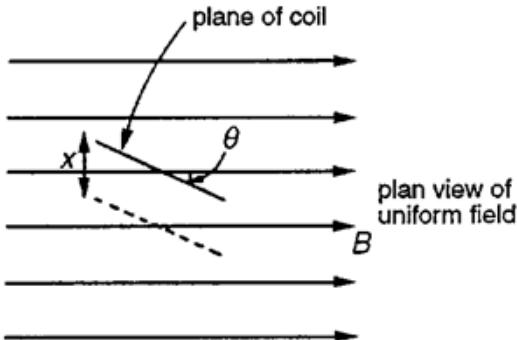


- 25 A plane coil of wire containing  $N$  turns each of area  $A$  is placed so that the plane of the coil makes an angle  $\theta$  with the direction of the uniform magnetic field of flux density  $B$ . The coil is now moved through a distance  $x$  in time  $t$  to the position shown dotted.



What is the e.m.f. induced in the coil?

- A zero      B  $NAB \frac{x}{t}$       C  $NABx \frac{\cos \theta}{t}$       D  $NABx \frac{\sin \theta}{t}$