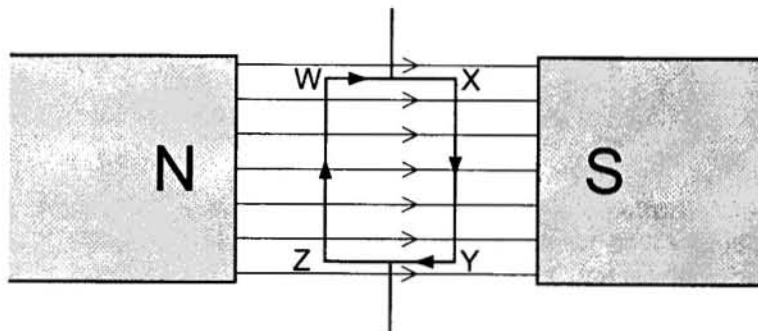


- 31 In an electric motor, a rectangular coil WXYZ has 20 turns and is in a uniform magnetic field of flux density  $0.83 \text{ T}$ .



The lengths of sides XY and ZW are  $0.17 \text{ m}$  and of sides WX and YZ are  $0.11 \text{ m}$ . The current in the coil is  $4.5 \text{ A}$ .

What is the maximum torque provided by the motor?

- A  $0.070 \text{ Nm}$       B  $0.63 \text{ Nm}$       C  $1.4 \text{ Nm}$       D  $2.8 \text{ Nm}$