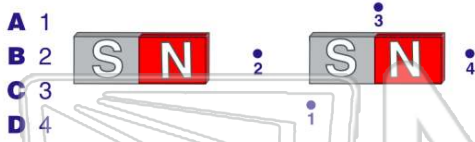


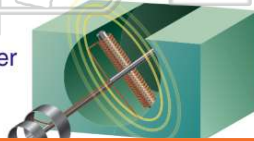


Name _____ Class _____ Date _____

- 1 The bar magnets of equal strength are positioned as shown.
At which point is the **magnetic flux density** due to the two magnets **greatest**?



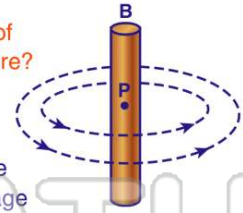
- 3 Which device can be used to **increase the voltage** from a source of direct current?
- A electroscope
B mass spectrometer
C induction coil
D generator



- 2 The diagram below represents the magnetic field around point P, at the center of a **current carrying wire**.

What is the **direction of electron flow** in the wire?

- A from A to B
B from B to A
C from P into the page
D from P out of the page



- 4 The transformer on a power pole **steps down** the voltage from **10,800 volts** to **120 volts**. If the **secondary coil** contains **360 turns**, how many turns are on the **primary coil**?

- A 30
B 90
C 3600



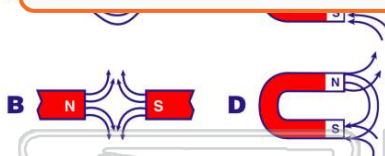
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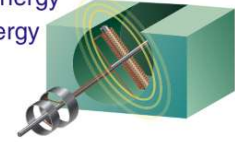
PREVIEW

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7



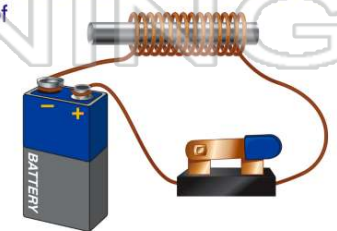
- B induced electrical energy
C elastic potential energy



- 9 As a **charged particle** moves through a magnetic field, the particle is **deflected**. The **magnitude of the magnetic force** acting on the particle is **directly proportional** to the
- A mass of the particle
B electric charge on the particle
C polarity of the magnetic field
D work done on the charge by the magnetic field

- 10 An **electromagnet** would have the **greatest strength** if its wire were wrapped around a **core** made of

- A wood
B iron
C aluminum
D copper





ANSWER KEY

The bar magnets of equal strength are positioned as shown.

At which point is the **magnetic flux density** due to the two magnets **greatest**?

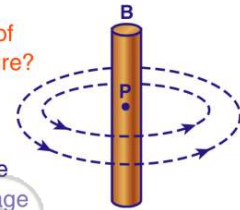
- A 1
 B 2
 C 3
 D 4
-

(b)

The diagram below represents the magnetic field around point P, at the center of a **current carrying wire**.

What is the **direction of electron flow** in the wire?

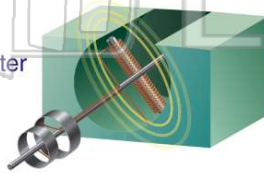
- A from A to B
 B from B to A
 C from P into the page
 D from P out of the page



(b)

Which device can be used to **increase the voltage** from a source of direct current?

- A electroscope
 B mass spectrometer
 C induction coil
 D generator



(c)

The transformer on a power pole **steps down** the voltage from 10,800 volts to 120 volts. If the **secondary coil** contains 360 turns, how many turns are on the **primary coil**?

- A 30
 B 90
 C 3600
 D 32,400



(d)



PREVIEW

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As a **charged particle** moves through a magnetic field, the particle is **deflected**. The **magnitude of the magnetic force** acting on the particle is **directly proportional** to the

- A mass of the particle
 B electric charge on the particle
 C polarity of the magnetic field
 D work done on the charge by the magnetic field

(b)

An **electromagnet** would have the **greatest strength** if its wire were wrapped around a **core** made of

- A wood
 B iron
 C aluminum
 D copper



(b)