

STATIC ELECTRICITY-SET-1

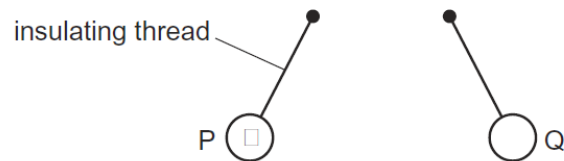
1	<p>A polythene rod repels an inflated balloon hanging from a nylon thread.</p> <p>What charges must the rod and the balloon carry?</p> <p>A The rod and the balloon carry opposite charges.</p> <p>B The rod and the balloon carry like charges.</p> <p>C The rod is charged but the balloon is not.</p> <p>D The balloon is charged but the rod is not.</p>
MS-1	B
2	<p>When a plastic comb is placed next to a small piece of aluminium foil hanging from a nylon thread, the foil is repelled by the comb.</p> <p>Why is this?</p> <p>A The comb is charged and the foil is uncharged.</p> <p>B The comb is uncharged and the foil is charged.</p> <p>C The comb and the foil have charge of opposite signs.</p> <p>D The comb and the foil have charge of the same sign.</p>
MS-2	D
3	<p>A plastic rod is rubbed with a dry cloth and becomes positively charged.</p> <p>Why has the rod become positively charged?</p> <p>A It has gained electrons.</p> <p>B It has gained neutrons.</p> <p>C It has lost electrons.</p> <p>D It has lost neutrons.</p>
MS-3	C

4	<p>A polythene rod repels an inflated balloon hanging from a nylon thread.</p> <p>What charges must the rod and the balloon carry?</p> <p>A The rod and the balloon carry opposite charges.</p> <p>B The rod and the balloon carry like charges.</p> <p>C The rod is charged but the balloon is not.</p> <p>D The balloon is charged but the rod is not.</p>
MS-4	B
5	<p>A polythene rod repels an inflated balloon hanging from a nylon thread.</p> <p>What charges must the rod and the balloon carry?</p> <p>A The rod and the balloon carry opposite charges.</p> <p>B The rod and the balloon carry like charges.</p> <p>C The rod is charged but the balloon is not.</p> <p>D The balloon is charged but the rod is not.</p>
MS-5	B

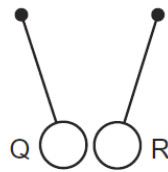
6

Three charged balls, P, Q and R are suspended by insulating threads. Ball P is negatively charged.

Ball Q is brought close to ball P.



Ball Q is now brought close to ball R.



What are the charges on ball Q and on ball R?

	ball Q	ball R
A	positive	positive
B	positive	negative
C	negative	positive
D	negative	negative

MS-6

C

7

A plastic rod and a dry cloth are uncharged.

The rod is now rubbed with the cloth and they both become charged. The rod becomes negatively charged because some charged particles move from the cloth to the rod.

What is the charge on the cloth and which particles moved in the charging process?

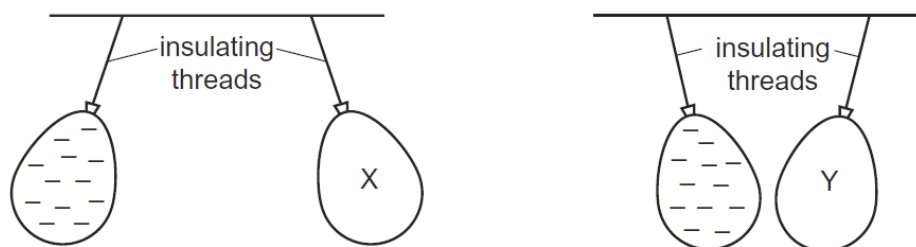
	charge on cloth	particles that moved
A	negative	electrons
B	negative	neutrons
C	positive	electrons
D	positive	neutrons

MS-7

C

8

Two balloons, X and Y, are suspended by insulating threads. They are each held near a negatively charged balloon. The balloons hang as shown.



What is the charge on balloon X and what is the charge on balloon Y?

	balloon X	balloon Y
A	negative	negative
B	negative	positive
C	positive	negative
D	positive	positive

MS-8

B

9

A plastic rod and a dry cloth are uncharged.

The rod is now rubbed with the cloth and they both become charged. The rod becomes negatively charged because some charged particles move from the cloth to the rod.

What is the charge on the cloth and which particles moved in the charging process?

	charge on cloth	particles that moved
A	negative	electrons
B	negative	neutrons
C	positive	electrons
D	positive	neutrons

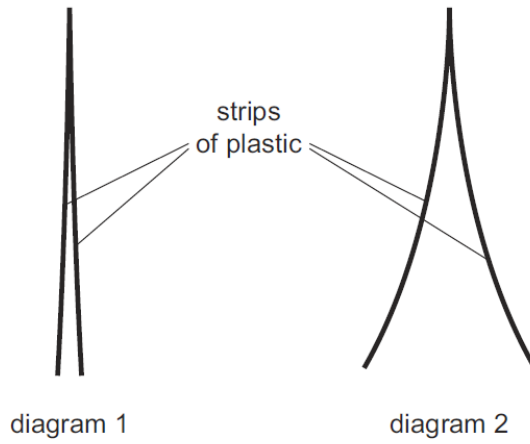
MS-9

C

10

Diagram 1 shows two thin, uncharged strips of plastic.

Diagram 2 shows the same strips after they have been rubbed with a dry cloth.



Which row describes the charge on the strips after rubbing, and the force between the strips after rubbing?

	charge on strips	force between strips
A	opposite	attraction
B	opposite	repulsion
C	the same	attraction
D	the same	repulsion

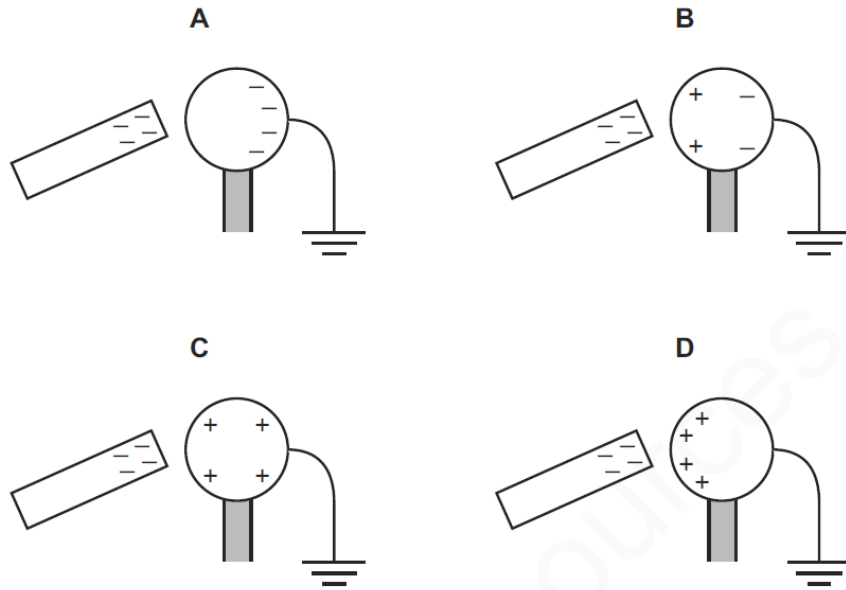
MS-10

D

11

A negatively charged rod is held close to one side of a metal sphere. The other side of the sphere is earthed.

Which diagram shows the distribution of charge on the metal sphere?



MS-11

D