Electrostatics – 2023 June O Level 5054

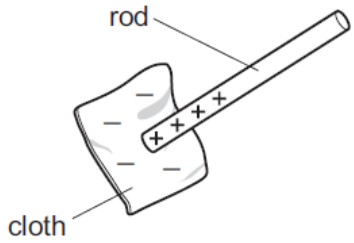
1. June/2023/Paper_ 5054/11/No.27

In an electrostatics experiment, a plastic rod is rubbed with a cloth.

The **cloth** becomes negatively charged.

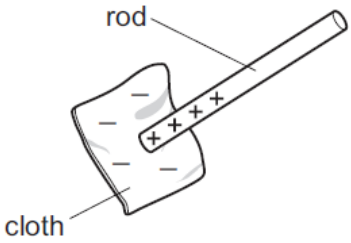
Which diagram shows the charge on the rod and describes the movement of charge?

A



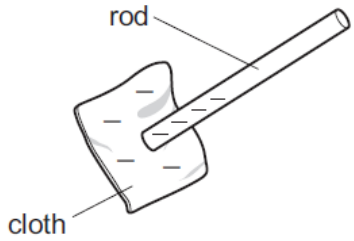
electrons move from the rod on to the cloth

B



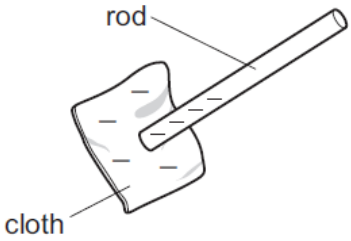
protons move from the cloth on to the rod

C



electrons move from the cloth on to the rod

D

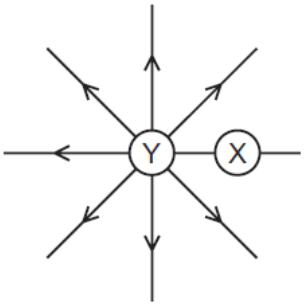


protons move from the rod on to the cloth

2. June/2023/Paper_ 5054/11/No.28

Object X is stationary and positively charged. It experiences a force due to the field produced by object Y.

The arrows show the direction of the field produced by Y.



Which statement about the direction of the force on X is correct?

A It is towards the right because it is in an electric field.

B It is towards the left because it is in an electric field.

C It is towards the right because it is in a magnetic field.

D It is towards the left because it is in a magnetic field.

3. June/2023/Paper_ 5054/12/No.26

A shoe becomes positively charged by friction when it rubs against a carpet.

What happens as the shoe becomes charged?

A Negative electrons are transferred to the carpet.

B Negative electrons are transferred to the shoe.

C Positive electrons are transferred to the carpet.

D Positive electrons are transferred to the shoe.