### <u>Electrostatics – 2020 IGCSE 0625</u>

#### 1. Nov/2020/Paper 12/No.29

A polythene rod is charged negatively by rubbing it with a cloth.

Which statement explains why the rod has become charged?

- A The rod has gained electrons.
- **B** The rod has gained protons.
- **C** The rod has lost electrons.
- **D** The rod has lost protons.

### 2. Nov/2020/Paper 13/No.29

Which statement about charging an insulator is correct?

- A It can be given an electrostatic charge by placing it in a magnetic field.
- B It can be given an electrostatic charge by connecting it to a battery.
- C It can be given an electrostatic charge by friction.
- **D** It cannot be given an electrostatic charge.

### 3. Nov/2020/Paper\_21/No.29

A negatively charged plastic rod is brought near to an uncharged metal sphere and held there.

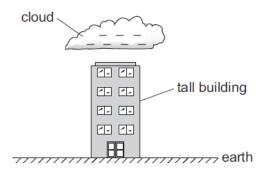
What happens when the metal sphere is earthed?

- A Electrons flow from the metal sphere to earth.
- B Electrons flow from earth to the metal sphere.
- C Positive charge flows from the metal sphere to earth.
- D Positive charge flows from earth to the metal sphere.



# 4. Nov/2020/Paper\_23/No.29

A negatively charged cloud passes over a tall steel-framed building. A charge is induced on the building by the cloud because charges flow through the building.



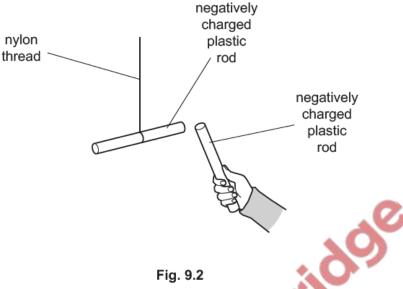
What charge is induced on the building and in which direction do the charge carriers move?

What charge is induced on the building and in which direction do the charge carriers			
	charge induced on building	direction of charge flow	0.
Α	positive	from the building to earth	100
В	positive	from earth to the building	.0
С	negative	from the building to earth	
D	negative	from earth to the building	10)
-: APalpaca			

# 5. Nov/2020/Paper\_32/No.9(c)

(c) Another student does an experiment with some electrostatically charged plastic rods.

Fig. 9.2 shows the student's arrangement.



Describe and explain what happens as the student brings one negatively charged rod close to the other negatively charged rod.

[2]