

4.4 Electromagnetic Effects

Question Paper

Course	CIE IGCSE Physics
Section	4. Electricity & Magnetism
Topic	4.4 Electromagnetic Effects
Difficulty	Medium

Time Allowed	10
Score	/5
Percentage	/100

Question 1

Which of the following methods could be used to demagnetise a permanent magnet?

- A. Cool it to a very low temperature.
- B. Put it in a coil of wire and pass direct current through the wire.
- C. Stroke it in a single direction with a permanent magnet.
- D. Heat it to a high temperature

[1 mark]

Question 2

After being produced at a power station, electrical voltage is increased significantly for transportation across the country via the national grid.

What is the advantage of transmitting electricity at very high voltages?

- A. It makes the electricity flow more quickly.
- B. It increases the efficiency of the electricity transfer.
- C. It produces more power.
- D. It is safer to transmit electricity at high voltage.

[1 mark]

Question 3

When a wire is moved through a magnetic field, an e.m.f. is induced in that wire.

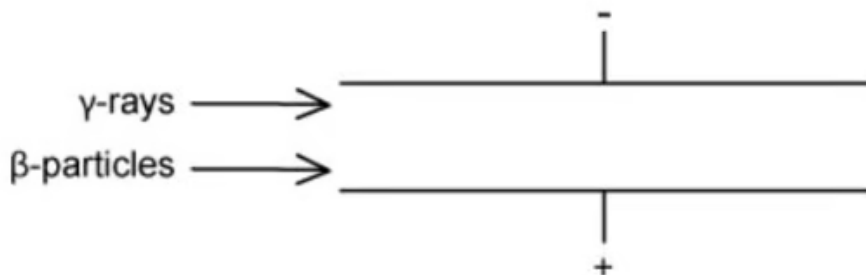
This rather remarkable effect allows which device to operate?

- A. An electric motor
- B. An electrical generator
- C. A photon accelerator
- D. A transformer.

[1 mark]

Question 4

Beta and gamma radiation are passed through two metal plates, with equal and opposite charges, as shown in the diagram below.



Which direction, if any, would the β -particles and γ -rays be deflected?

	β -particles	γ -rays
A	into the page	continue straight
B	towards the negative plate	out of the page
C	continue straight	towards the negative plate
D	towards the positive plate	continue straight

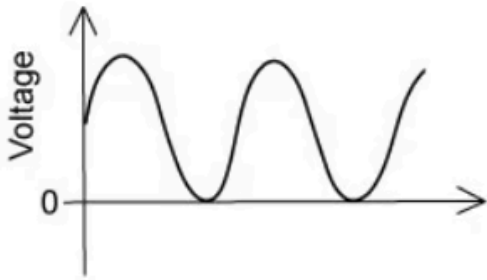
[1 mark]

Question 5

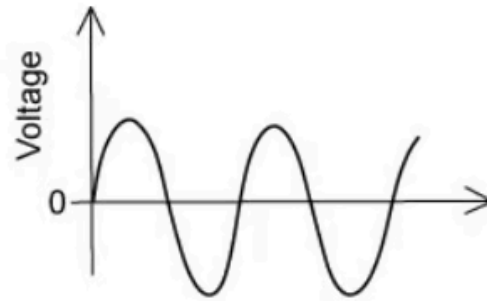
One of the diagrams below represents the output of a simple A.C. generator.

Which one is correct?

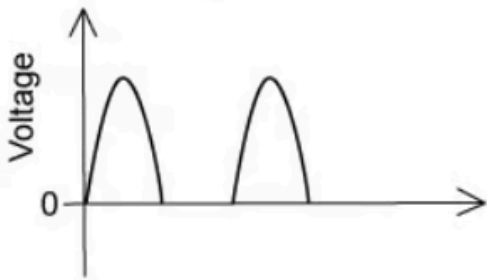
A



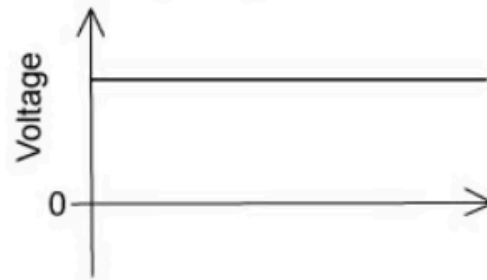
B



C



D



[1 mark]