

Electromagnetic Effects

Question Paper

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

Time Allowed 10

Score /4

Percentage /100

Question 1

After electricity is generated at a power station, the voltage is increased significantly for transmission 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 2

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

Which of the following devices uses this effect?

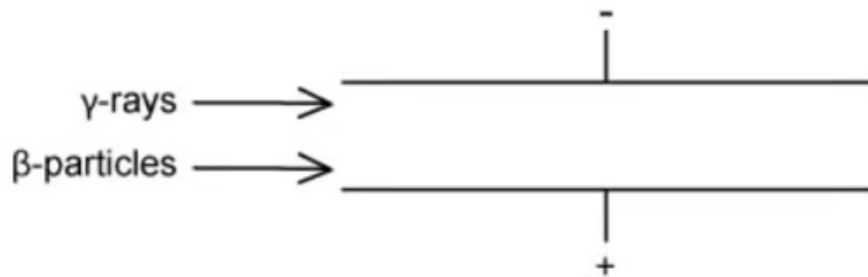
- A. electric motor
- B. electricity generator
- C. photon accelerator
- D. transformer

[1 mark]

Question 3

Extended tier only

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



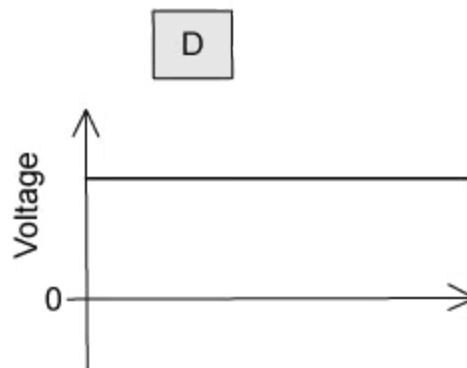
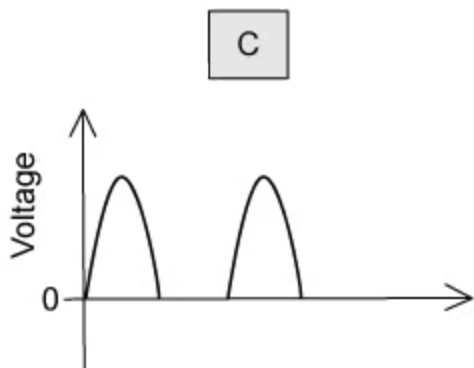
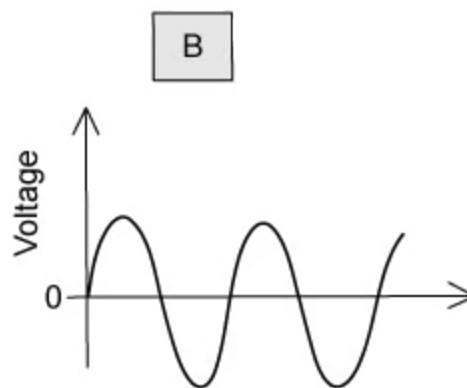
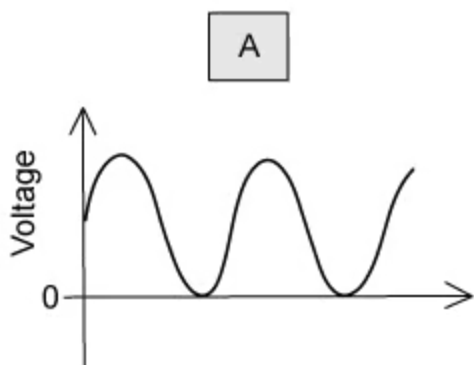
Which direction, if any, would the β -particles and γ -rays be deflected?

	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 4**Extended tier only**

Which graph represents the output of a simple a.c. generator?



[1 mark]