

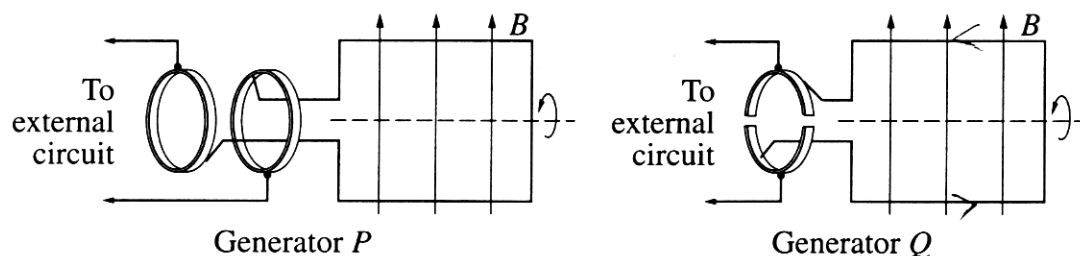
Physics

Section I – Part B (continued)

Marks

Question 22 (6 marks)

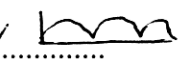
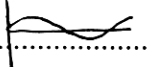
Two types of generator are shown in the diagram.



- (a) What is the function of the brush in a generator? 1

To transfer the current created from the turning motion into the external circuit.

- (b) Which of these generators is a DC generator? Justify your choice. 3

Generator Q is because it uses split ring commutator and brushes. When turning an alternating current is created the split rings change what side of the wire they are on so the current becomes a direct current i.e.  as opposed to .

- (c) Outline why AC generators are used in large-scale electrical power production. 2

It is easier to convert AC to DC than DC to AC \therefore have both options. Transformers only work with AC \therefore can manipulate voltage and current so ~~can~~ less heat lost as transported at high voltage and low current. It is easier to "tap" into AC for different houses along a street.