

**Question 27 (4 marks)**

There are two areas in which energy savings can be made by the use of superconductors. These are:

4

- electricity generation and transmission;
- transportation.

Discuss how energy savings can be achieved in each of these two areas.

- Because there is very low resistance associated with superconductors energy losses through long distance transmission, from power generator to the consumer is reduced dramatically, so power generators can reduce the amount of power they need produce.
- Electrically powered transportation could become more cost effective due to reduced power energy losses.