Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Q1.

Figure 17 is a diagram representing a loudspeaker.

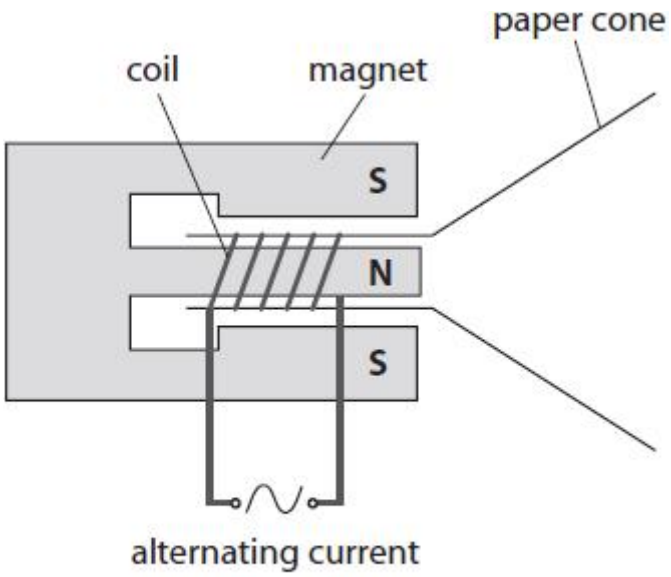

Figure 17

Explain how sound is produced when an alternating current is supplied to the coil of the loudspeaker.

(4)

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(Total for question = 4 marks)

Q2.

Figure 22 shows how electricity is delivered efficiently from a power station (P) to homes (T).

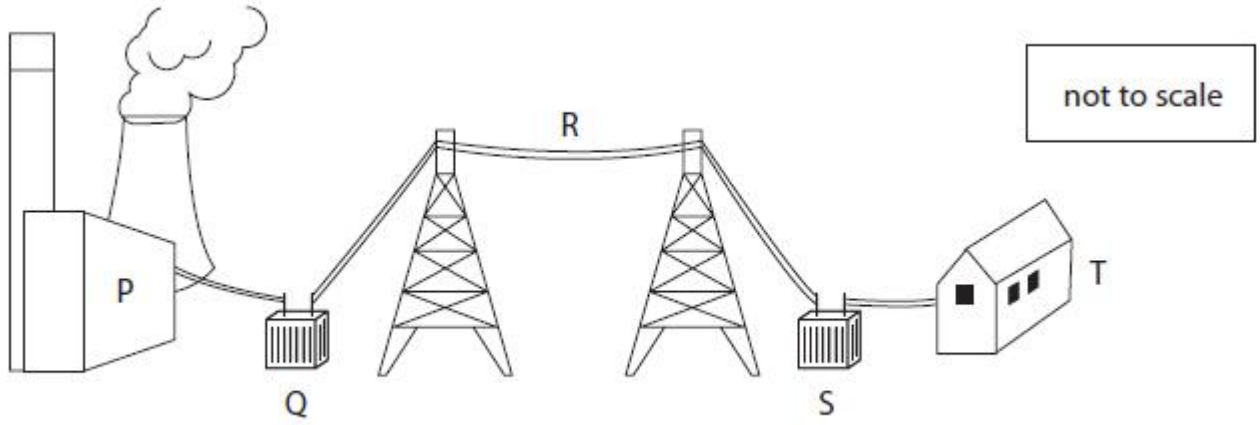

Figure 22

Using Figure 22, explain the stages in the process of delivering electricity efficiently from P to T.
Your answer should include details of the effects that Q, R and S have on efficiency.

(6)

(Total for question = 6 marks)

Q3.

Figure 20 shows a magnet and a coil.

The coil is connected to a sensitive centre-zero ammeter.

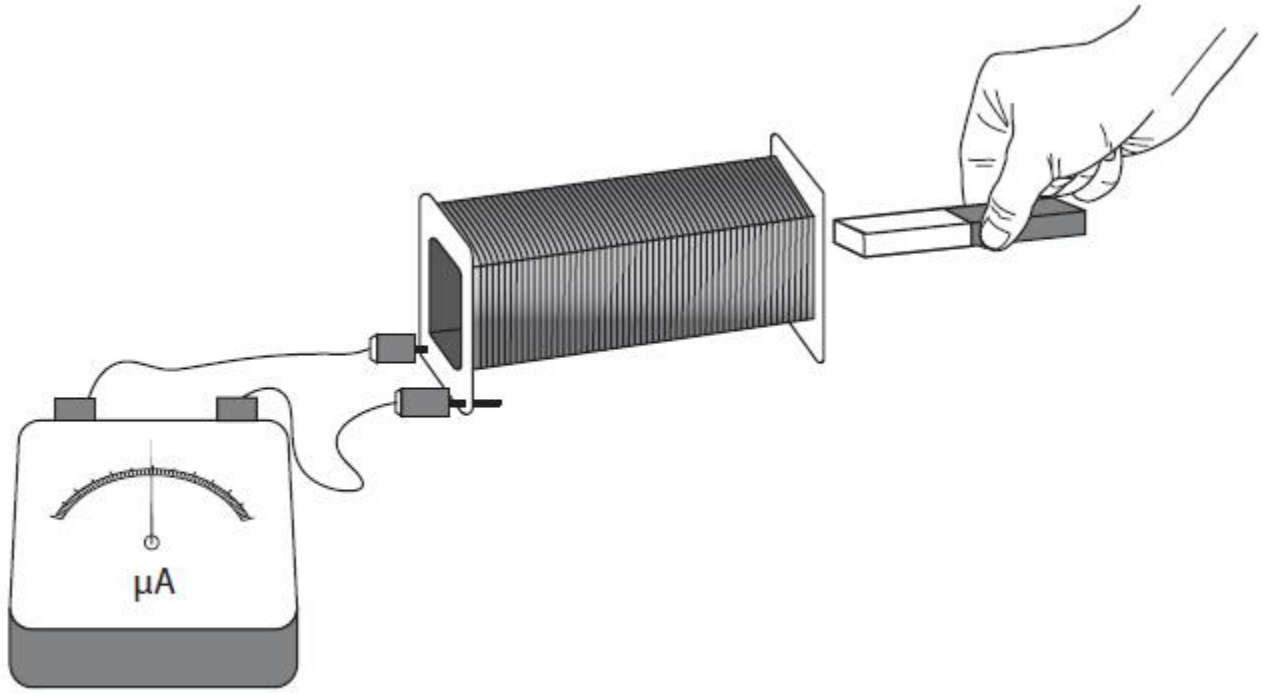

Figure 20

Explain what will be observed on the meter when the magnet is pushed in and pulled out of the coil, repeatedly.

(3)

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(Total for question = 3 marks)

Q4.

* Figure 19 shows a coil of wire that is being rotated between the poles of a magnet.

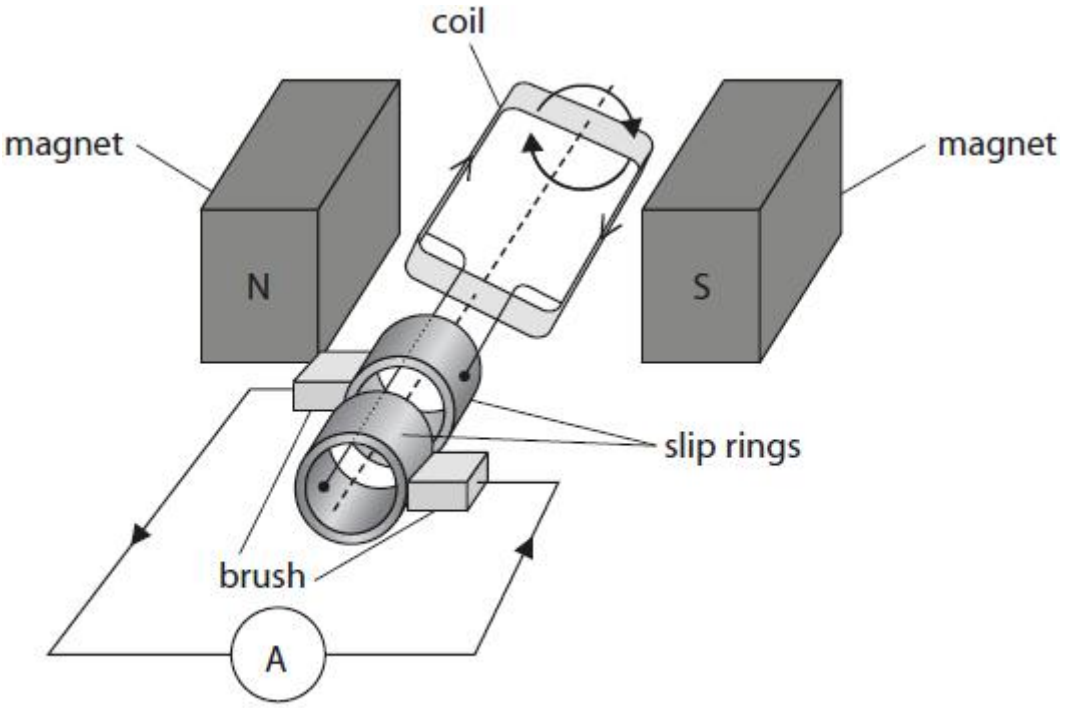

Figure 19

Figure 20 shows how the current in the coil changes during **one** complete rotation of the coil.

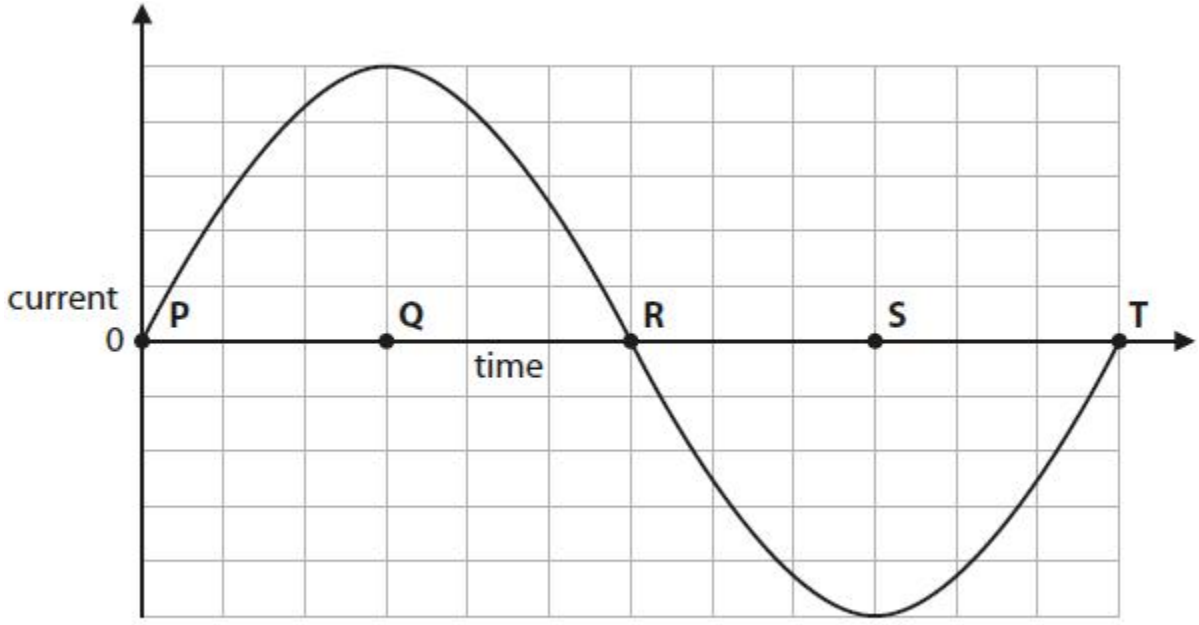

Figure 20

Explain why the current changes in the way shown by the graph in Figure 20.

Your answer should include details of the position of the coil relative to the magnet at each of the times labelled P, Q, R, S and T.

You may use diagrams to help your answer.

(6)

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(Total for question = 6 marks)