## Mark schemes

Q1.

(a) 50 hertz

(b) 230 volts

[2]

Q2.

(a) brown

(b) blue

1

1

1

1

(c)

[3]

Q3.

(a) polarity of the potential difference doesn't change allow direction of the potential difference doesn't change

1

(b) E = QV

1

(c)  $5010 = Q \times 12$ 

1

$$Q = \frac{5010}{12}$$

1

Q = 417.5 (C) allow 418 (C)

[5]