

STRAND 5

ELECTRICITY

[14 marks]

| | | | | |
|---|---|---|---|---|
| 1 | A | B | C | D |
| 2 | A | B | C | D |
| 3 | A | B | C | D |

4) net electric field at point X

(2 marks)

5) (i) main purpose

(1 mark)

5) (ii) electric field

(1 mark)

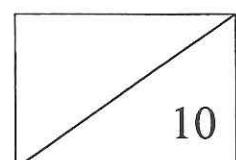
5) (iii) charge

(1 mark)

5) (iv) number

(1 mark)

| | |
|--------------------------|----------|
| 3) (i) direction | (1 mark) |
| 3) (ii) magnetic force | (1 mark) |
| 4) (i) direction | (1 mark) |
| 4) (ii) radius | (1 mark) |
| 5) (i) speed, v | (1 mark) |
| 5) (ii) direction | (1 mark) |
| 5) (iii) induced current | (1 mark) |
| 6) number of turns | (1 mark) |



6) (i) total resistance

(1 mark)

6) (ii) unknown resistor R

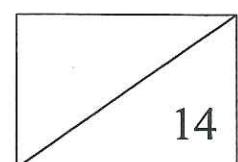
(2 marks)

6) (iii) power

(1 mark)

7) Fuse

(1 mark)



STRAND 6

ELECTROMAGNETISM

[10 marks]

| | | | | |
|---|---|---|---|---|
| 1 | A | B | C | D |
| 2 | A | B | C | D |

STRAND 7

ATOMIC PHYSICS

[8 marks]

| | | | | |
|---|---|---|---|---|
| 1 | A | B | C | D |
| 2 | A | B | C | D |

3) (i) half-life

(1 mark)

4)

$$a = \quad b =$$

(1 mark)

5) (i) type of charge

(½ mark)

5) (ii) name

(½ mark)

6) (i) threshold frequency

(1 mark)

6) (ii) work function

(1 mark)

6) (ii) Planck's constant

(1 mark)

8

THE END

