

- 28 Diagram 25 shows a wooden block floating in a water.

Rajah 25 menunjukkan sebuah blok kayu terapung dalam air.

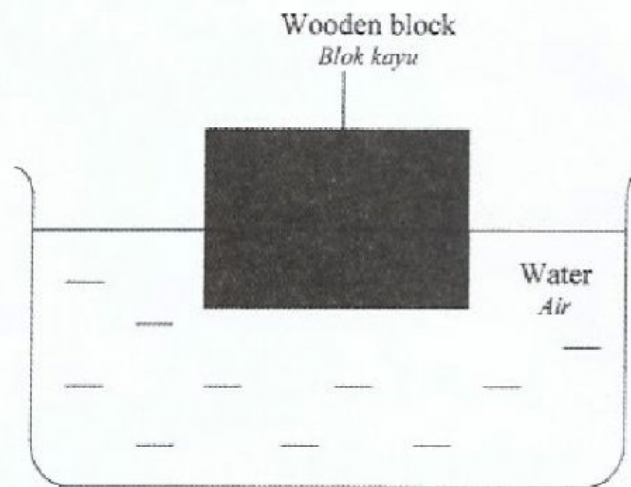


Diagram 25

Rajah 25

Which physics concept explains the situation above?

Konsep fizik yang manakah menerangkan situasi di atas?

- A Snell's law
Hukum Snell
- B Boyle's law
Hukum Boyle
- C Bernoulli's principle
Prinsip Bernoulli
- D Archimedes' principle
Prinsip Archimedes

- 29 Diagram 26(a) and Diagram 26(b) show candle flames that are spread out between two metal plates when the power supply, Extra High Tension (E.H.T) are switched on.

Rajah 26(a) dan Rajah 26(b) menunjukkan api sebatang lilin yang tersebar antara dua plat logam apabila bekalan kuasa, Voltan Lampau Tinggi (V.L.T) dihidupkan.

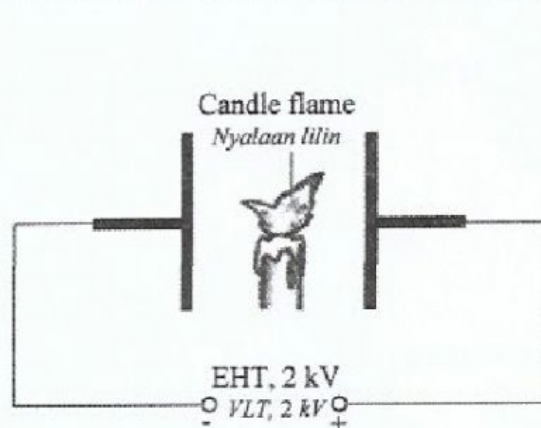


Diagram 26(a)
Rajah 26(a)

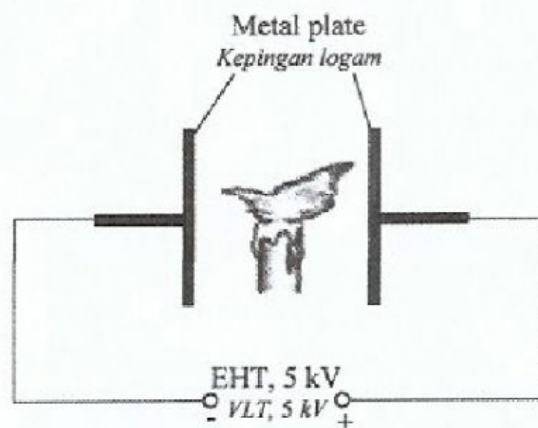


Diagram 26(b)
Rajah 26(b)

What is the correct statement from the observation of the diagrams?

Pernyataan yang manakah betul dari pemerhatian pada kedua-dua rajah?

- A Electrical force on positive plate is greater than the negative plate
Daya elektrik pada plat positif lebih besar berbanding plat negatif
- B Electrical force on negative plate is greater than the positive plate
Daya elektrik pada plat negatif lebih besar berbanding plat positif
- C The stronger the electric field, the more the spread out of the candle flame
Semakin kuat medan elektrik, semakin banyak penyebaran api lilin
- D The spread out of the candle flame depends on the strength of the magnetic fields
Penyebaran api lilin bergantung kepada kekuatan medan magnet

- 30 Diagram 27 shows a graph of potential difference, V against electric current, I for wire P, Q, R and S. The wire is made of the same material and has same length.

Rajah 27 menunjukkan graf beza keupayaan, V melawan arus elektrik, I bagi dawai P, Q, R dan S. Dawai tersebut diperbuat daripada bahan yang sama dan mempunyai panjang yang sama.

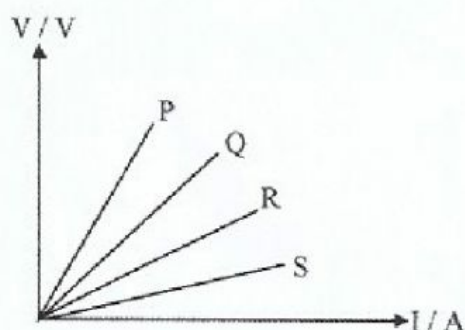


Diagram 27
Rajah 27

Which of the wire is the thickest?

Dawai yang manakah paling tebal?

- | | |
|-----|-----|
| A P | B Q |
| C R | D S |
- 31 Diagram 28 shows an opened circuit. The electromotive force, e.m.f. of the battery is E .

Rajah 28 menunjukkan satu litar terbuka. Daya gerak elektrik, d.g.e bateri ialah E .

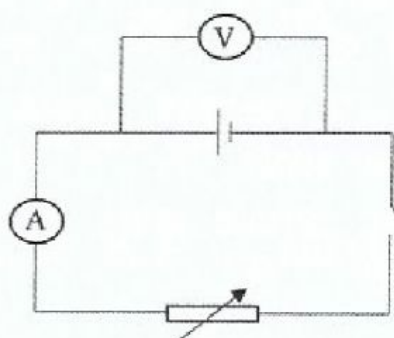


Diagram 28
Rajah 28

What happens to the reading of the voltmeter when the switch is closed?

Apakah yang berlaku kepada bacaan voltmeter apabila suis ditutup?

- | | |
|--|--|
| A Equal to zero
Sama dengan sifar | B Same as the electromotive force, E
Sama dengan daya gerak elektrik, E |
| C Less than the electromotive force, E
Kurang daripada daya gerak elektrik, E | D Greater than the electromotive force, E
Lebih besar daripada daya gerak elektrik, E |

- 32 Diagram 29 shows a cross section of a current-carrying conductor between two magnets.
Rajah 29 menunjukkan keratan rentas satu konduktor yang membawa arus di antara dua magnet.

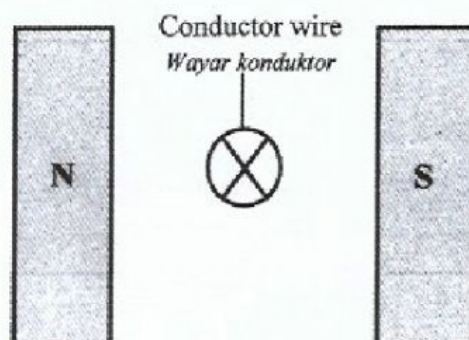
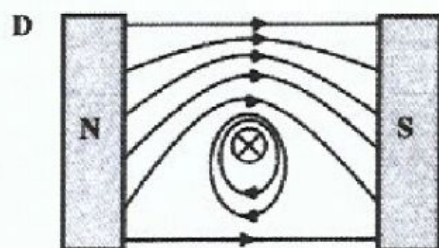
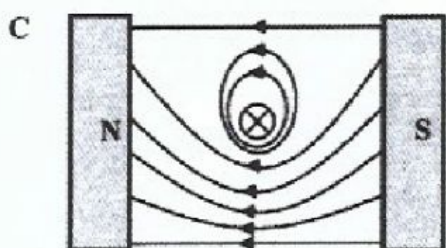
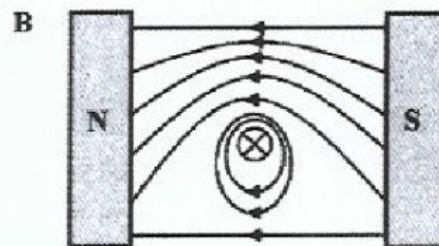
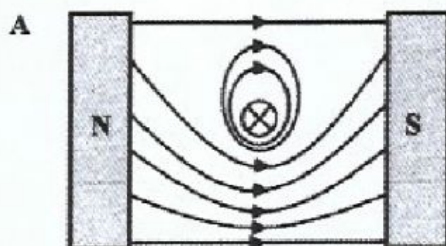


Diagram 29
Rajah 29

Which diagram shows the correct catapult field?
Rajah manakah menunjukkan medan lastik yang betul?



- 33 Diagram 30 shows a transformer with efficiency of 70%.

Rajah 30 menunjukkan sebuah transformer dengan kecekapan 70%.

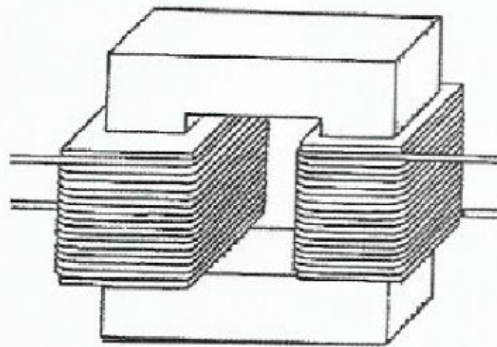


Diagram 30

Rajah 30

What action can be taken to increase the efficiency of the transformer?

Apakah tindakan yang boleh diambil bagi meningkatkan kecekapan transformer tersebut?

- A Use steel as a core
Gunakan keluli sebagai teras
- B Use laminated iron core
Gunakan teras besi berlamina
- C Use thinner copper wire as a coil
Gunakan dawai kuprum yang lebih nipis sebagai gegelung
- D The secondary coil is wound beside the primary coil
Gegelung sekunder dililit bersebelahan gegelung primer.

- 34 Diagram 31 shows a deflection tube which was used to investigate the characteristics of cathode ray.

Rajah 31 menunjukkan sebuah tiub pemesongan yang digunakan untuk menyiasat ciri-ciri sinar katod.

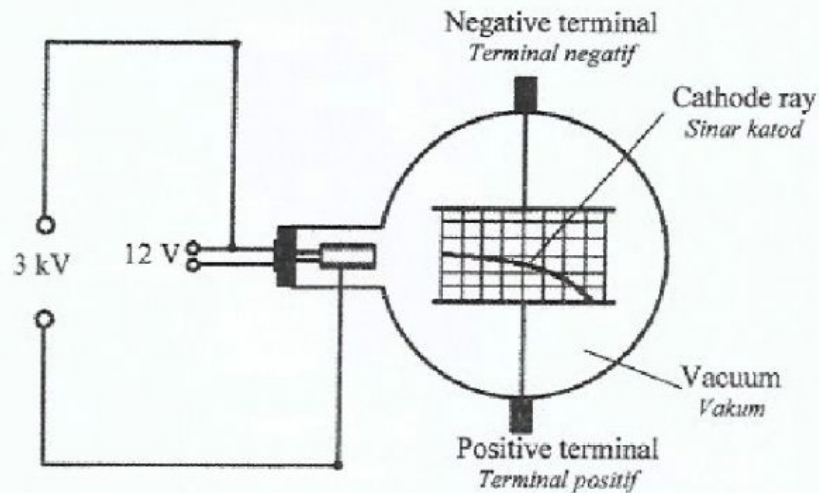


Diagram 31
Rajah 31

What is the conclusion of the investigation?

Apakah kesimpulan dari penyiasatan tersebut?

- A Cathode ray is positively charged.
Sinar katod bercah positif.
- B Cathode ray travels in a straight line.
Sinar katod merambat dalam garis lurus.
- C Cathode ray can be deflected by electric field.
Sinar katod boleh dipesongkan oleh medan elektrik.
- D Cathode ray can be deflected by magnetic fields.
Sinar katod boleh dipesongkan oleh medan magnet.

- 37 Diagram 33 shows Louis de Broglie, a physicist that came out with the hypothesis on the wave nature of particles in 1924.

Rajah 33 menunjukkan Louis de Broglie, seorang ahli Fizik yang telah membuat hipotesis tentang sifat gelombang zarah pada tahun 1924.



Diagram 33
Rajah 33

Which statement is correct regarding his hypothesis?

Pernyataan manakah yang betul mengenai hipotesis beliau?

- A Large masses particles have long de Broglie wavelength
Zarah yang berjisim besar mempunyai panjang gelombang de Broglie yang besar
- B The greater the momentum of a particle, the greater its wavelength
Semakin besar momentum sesuatu zarah, semakin besar panjang gelombangnya
- C The wave characteristics of particle with large masses can easily be seen
Ciri-ciri gelombang pada zarah yang mempunyai jisim yang besar dapat dilihat dengan mudah
- D Electrons have wave properties because they exhibit wave characteristics
Elektron mempunyai ciri gelombang kerana ianya mempamerkan ciri-ciri gelombang

- 38 Diagram 34 shows a graph of current, I against voltage, V in an experiment to determine the value of Planck's constant.

Rajah 34 menunjukkan satu graf arus, I melawan voltan, V dalam satu eksperimen untuk menentukan nilai pemalar Planck.

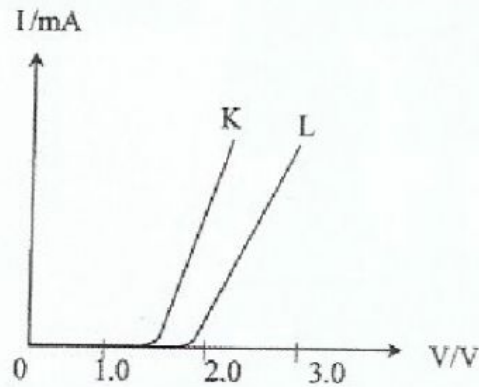


Diagram 34
Rajah 34

Which conclusion is correct from the graph?

Kesimpulan manakah yang betul dari graf tersebut?

- A K is blue LED while L is red LED
K adalah LED biru manakala L adalah LED merah
- B The gradients of K is smaller than gradient of L
Kecerunan K lebih kecil berbanding kecerunan L
- C Gradient of the graph represents Planck's constant
Kecerunan graf mewakili pemalar Planck
- D Activation voltage of K is smaller than activation voltage L
Voltan pengaktifan K adalah lebih kecil berbanding voltan pengaktifan L