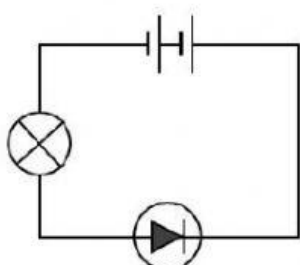


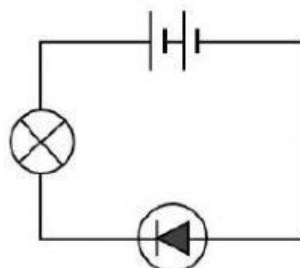
- 34 Antara litar yang berikut, yang manakah menunjukkan susunan diod pincang ke depan?

Which of the following circuits shows the forward-biased arrangement of a diode?

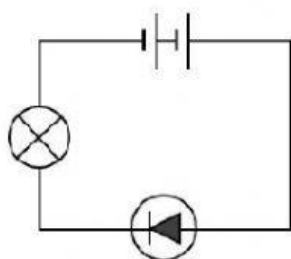
A



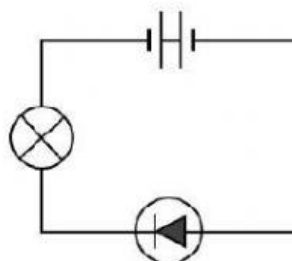
C



B

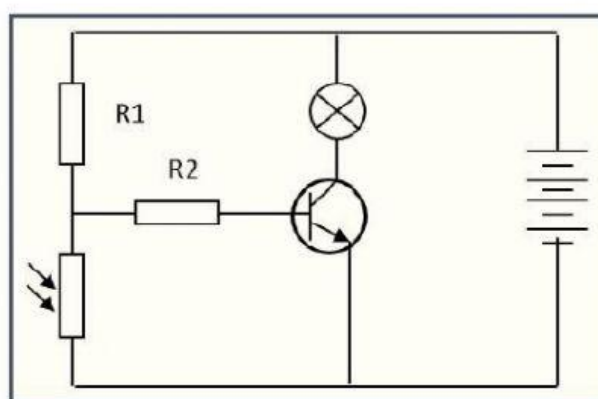


D



- 35 Rajah 24 menunjukkan litar pensuisan transistor dengan sebuah perintang peka cahaya.

Diagram 24 shows a transistor switching circuit with a light dependent resistor.



Rajah 24

Diagram 24

Mentol akan menyala apabila

The bulb will light up when

- A perintang R1 ditanggalkan
the resistor R1 is disconnected
- B apabila terminal bateri disongsangkan
the terminals of the battery are reversed
- C persekitaran adalah terang
the surrounding is bright
- D persekitaran adalah gelap
the surrounding is dark

- 36 Satu nukleus X dihasilkan oleh ${}^{230}_{91}\text{Z}$. Nukleus Z mengeluarkan satu zarah alfa, α dan kemudian satu zarah beta, β .

A nuclide X is represented by ${}^{230}_{91}\text{Z}$. It emits one alpha, α particle and then one beta, β particle.

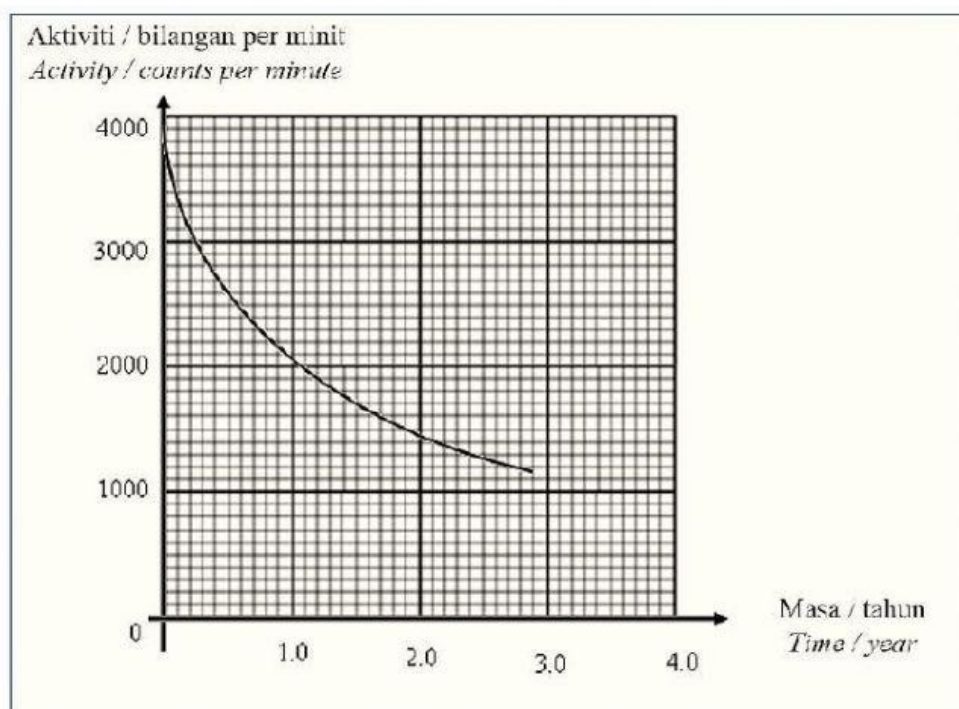
Apakah nuklid X?

What is the Nuclide X?

- | | |
|---------------------------|---------------------------|
| A ${}^{226}_{88}\text{X}$ | C ${}^{226}_{90}\text{X}$ |
| B ${}^{226}_{89}\text{X}$ | D ${}^{230}_{89}\text{X}$ |

37 Rajah 25 menunjukkan lengkung reputan bagi satu sampel radioaktif.

Diagram 25 shows the decay curve of a radioactive sample.



Rajah 25
Diagram 25

Berapakah separuh hayat bagi sampel radioaktif tersebut?

What is the half life of the radioactive sample?

A 0.2 tahun
0.2 years

C 1.0 tahun
1.0 years

B 0.4 tahun
0.4 years

D 1.2 tahun
1.2 years

- 38 Apabila satu sampel Radium-226 mereput, tenaga yang dibebaskan ialah $7.81 \times 10^{-13} \text{ J}$. Berapakah cacat jisim?

When a sample of Radium-226 decays, the energy released is $7.81 \times 10^{-13} \text{ J}$. What is the mass defect?

- A $8.68 \times 10^{-30} \text{ kg}$
 B $2.60 \times 10^{-21} \text{ kg}$
 C $3.84 \times 10^{20} \text{ kg}$
 D $1.15 \times 10^{29} \text{ kg}$
- 39 Fotosel disinari dengan cahaya yang mempunyai panjang gelombang, λ dan keamatan cahaya, I . Apakah perubahan yang akan diperhatikan jika keamatan cahaya ditambahkan tetapi panjang gelombang masih kekal?

Photocell are illuminated with light having a wavelength, λ and the intensity of light, I . What changes will be observed if the light intensity is increased but the wavelength remain unchanged?

- A Pembiasan
Refraction
- B Pembelauan
Diffraction
- C Interferens
Interference
- D Foelektrik
Photoelectric
- 40 Antara berikut yang manakah benar tentang eksperimen yang digunakan untuk membuktikan sifat kedualan gelombang – zarah?

Which of the following is experiment evidence to prove the nature of wave – particle duality?

	Zarah berkelakuan gelombang <i>Particle behave as wave</i>	Gelombang berkelakuan zarah <i>Wave behave as particle</i>
A	Kesan fotoelektrik <i>Photoelectric effect</i>	Pembelauan elektron <i>Electron diffraction</i>
B	Pembelauan elektron <i>Electron diffraction</i>	Kesan fotoelektrik <i>Photoelectric effect</i>
C	Pembelauan elektron <i>Electron diffraction</i>	Interferens <i>Interference</i>
D	Kesan fotoelektrik <i>Photoelectric effect</i>	Interferens <i>Interference</i>