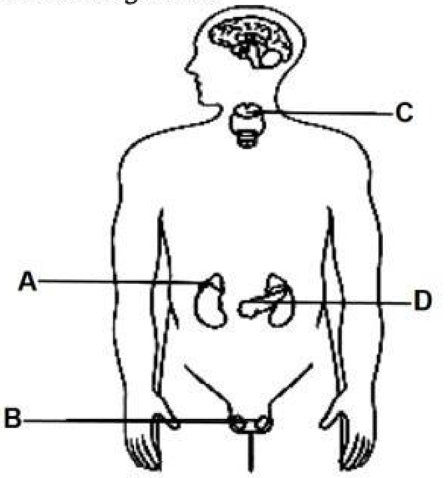
MODUL i-READY SAINS SPM

T4 BAB 7 KOORDINASI BADAN

1. Rajah 9 menunjukkan kelenjar endokrin bagi seorang lelaki.
   Diagram 9 shows the male endocrine glands.

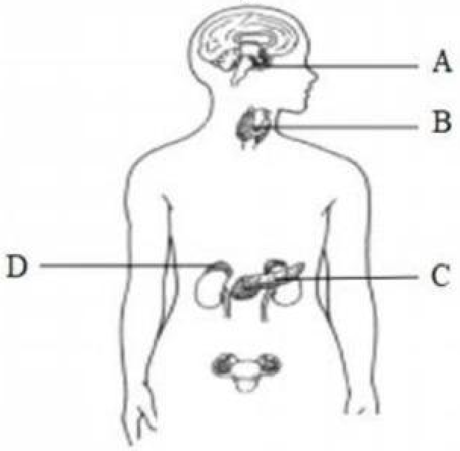


Rajah 9

Diagram 9

Antara kelenjar **A**, **B**, **C** dan **D** yang manakah kelenjar adrenal?
Which gland **A**, **B**, **C** *or* **D** *is an adrenal gland*?

2. Rajah 7 menunjukkan kedudukan kelenjar-kelenjar endokrin dalam tubuh manusia.
   Diagram 7 shows the position of the endocrine glands in the human body.

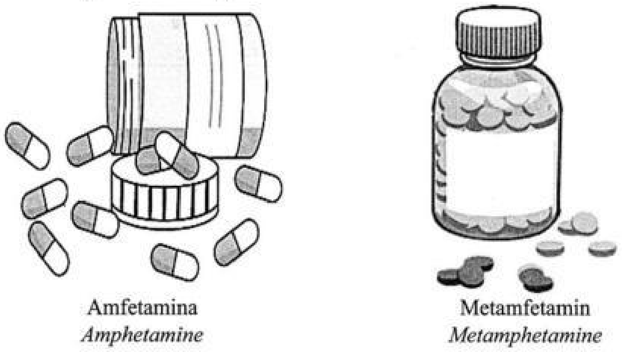


Rajah / Diagram 7

Antara kelenjar berlabel **A**, **B**, **C** dan **D**, yang manakah menghasilkan hormon yang mengawal aras glukosa dalam darah?
Among the glands labelled **A**, **B**, **C** *or* **D**, *which one produces the hormone that controls the level of glucose in the blood?*

LIVEWORKSHEETS

3. Rajah 11 menunjukkan beberapa jenis dadah.
   Diagram 11 shows several types of drug.



Rajah 7
Diagram 7

Antara berikut, yang manakah kesan bagi dadah tersebut?
Which of the following is the effect of the drugs?

A Menyebabkan halusinasi
Cause hallucination

B Menjejaskan koordinasi otot
Affect the coordination of muscle

C Mempercepat pergerakan impuls dalam koordinasi badan
Accelerate movement of impulse in body coordination

D Menghalang atau melambatkan pergerakan impuls dalam koordinasi badan
Prevent or slow down movement of impulse in body coordination

4. Rajah 7 menunjukkan satu situasi yang dihadapi oleh seorang lelaki.
   Diagram 7 shows a situation faced by a man.

Rajah 7
Diagram 7

Antara dadah berikut, yang manakah mungkin menyebabkan situasi di atas?
Which of the following drugs may cause the situation above?

A. Ketamin
Ketamine

B. Barbiturat
Barbiturates

C. Amfetamina
Amphetamine

D. Metamfetamin
Methamphetamine

LIVEWORKSHEETS

5. Jadual 1 menunjukkan kesan kekurangan dan berlebihan rembesan hormon X.
Table 1 shows the effects of under and over secretion of hormone X.

Kekurangan rembesan *Under secretion*	Berlebihan rembesan *Over secretion*
Tidak tahan sejuk *Intolerance to cold*	Bola mata menonjol keluar *Protruding eyeballs*

Jadual 1
Table 1

Apakah hormon X?
What is hormone X?

A. Adrenalina
Adrenaline

B. Tiroksina
Thyroxine

C. Hormon antidiuresis
Antidiuretic hormone

D. Hormon pertumbuhan
Growth hormone

6. Antara berikut, hormon manakah dirembes oleh pankreas?
Which of the following hormones is secreted by the pancreas?

A Estrogen
Oestrogen

B Insulin
Insulin

C Tiroksina
Thyroxine

D Testosteron
Testosterone

7. Maklumat menunjukkan ciri-ciri satu kelenjar endokrin **X.**

- Dikenali sebagai kelenjar induk
- Merembeskan hormon untuk mengawal kelenjar endokrin yang lain

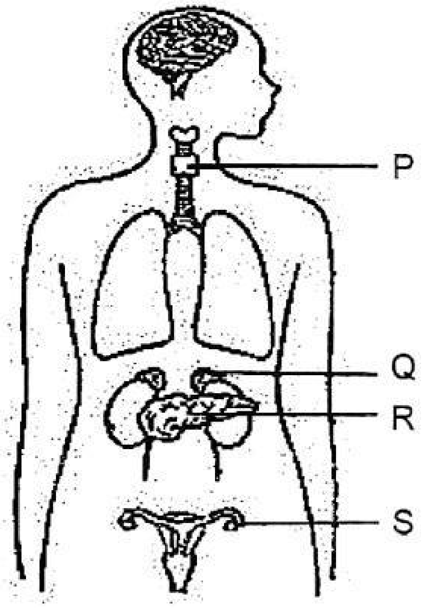
Apakah kelenjar X?

A Tiroid
B Adrenal
C Pituitari
D Pankreas

LIVEWORKSHEETS

BAHAGIAN B

1. Sistem endokrin merupakan satu sistem di dalam badan yang mengkoordinasikan fungsi badan yang melibatkan bahan kimia.
The endocrine system is one of the systems in the body that coordinates body functions involving chemicals.



Rajah 6.1
Diagram 6.1

(a) Berdasarkan Rajah 6.1, nyatakan satu bahan kimia yang dirembeskan oleh kelenjar S.
Based on Diagram 6.1, *state* ***one*** *chemical substance secreted by the gland S.*

…………………………………………………………………………………………………..

[1 markah]
[1 mark]

(b) Seorang individu telah disahkan mengalami ketumbuhan sei pada kelenjar P. Doktor mencadangkan agar kelenjar P dibuang supaya sei ketumbuhan tidak merebak ke organ lain.
Nyatakan satu kesan sekiranya kelenjar P ini dikeluarkan.
An individual has been diagnosed with a cell tumor in gland P. The doctor suggested that gland P be removed so that the tumor cells do not spread to other organs.
State ***one*** *effect if this gland P is removed.*

…………………………………………………………………………………………………..

[1 markah]
[1 mark]

LIVEWORKSHEETS

(c) Rajah 6.2 menunjukkan seorang budak lelaki yang dikejar anjing liar semasa bersiar-siar di kawasan rumahnya.
Diagram 6.2 shows a boy who was chased by a stray dog while walking in his housing area.

Rajah 6.2
Diagram 6.2

Terangkan bagaimana kelenjar Q membantu budak lelaki itu menyelamatkan diri daripada gigitan anjing liartersebut.
Explain how gland Q helped the boy save himself from the stray dog bite.

……………………………………………………………………………………………..

……………………………………………………………………………………………..

[2 markah]
[2 marks]

(d) Encik Bard dikesan mengalami kegagalan kelenjar R yang mengakibatkan beliau mengidap diabetes mellitus. Penyakit ini menyebabkan tubuh beliau tidak dapat menukarkan glukosa kepada glikogen.
Mr. Bard was diagnosed with gland R failure causes him to have diabetes mellitus. This disease causes his body unable to convert glucose into glycogen.

Menu X	Menu Y
1 cawan nasi beras biasa *1 cup of plain rice*	1 cawan nasi beras perang *1 cup of brown rice*
1 cawan sayur labu *1 cup of pumpkin*	1 cawan sayur kobis *1 cup of cabbage*
1 biji buah pisang *1 banana*	1 potong buah jambu batu *1 piece of guava*
1 cawan air kopi *1 cup of coffee*	1 cawan air kosong *1 cup of plain water*

Rajah 6.3
Diagram 6.3

Berdasarkan Rajah 6.3, pilih satu menu yang sesuai untuk Encik Bard dan jelaskan.
Based on Diagram 6.3, *choose one suitable menu for Mr. Bard and explain.*

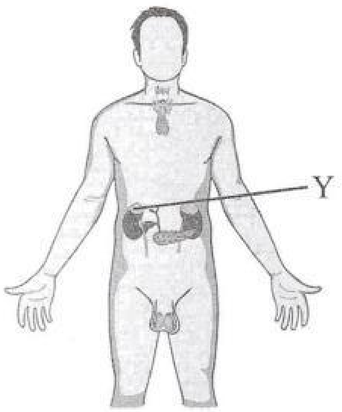
……………………………………………………………………………………………..

……………………………………………………………………………………………..

[2 markah] *[2 marks]*

LIVEWORKSHEETS

2. Rajah 6.1 menunjukkan sistem endokrin bagi seorang remaja lelaki.
Diagram 6.1 *shows the endocrine system of an adolescent boy.*



Rajah 6.1
Diagram 6.1

(a) Berdasarkan Rajah 6.1,
Based on Diagram 6.1,
(i) Namakan kelenjar Y.
Name gland Y.

……………………………………………………………………………………………………..

[1 markah]
[1 mark]

(ii) Nyatakan **satu** fungsi hormon yang dirembeskan oleh kelenjar Y.
State **one** *function of the hormone secreted by gland* Y.

……………………………………………………………………………………………………..

[1 markah]
[1 mark]

(b) Seorang remaja perempuan mengalami kitar haid yang tidak teratur akibat kelenjar ovari yang gagal berfungsi dengan baik. Berikan kesan sampingan lain yang dia alami.
A teenage girl experiences an irregular menstrual cycle due to the ovarian gland which fails to function properly. Provide other additional side effects that she is experiencing.

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

[2 markah] *[2 marks]*

LIVEWORKSHEETS

(c) Rajah 6.2 menunjukkan individu dewasa yang memiliki keadaan fizikal yang berbeza.
Diagram 6.2 shows *adult who have different physical conditions.*

Rajah 6.2
Diagram 6.2

Banding bezakan hormon antara individu R dan individu S.
Compare and contrast between R *and* S.

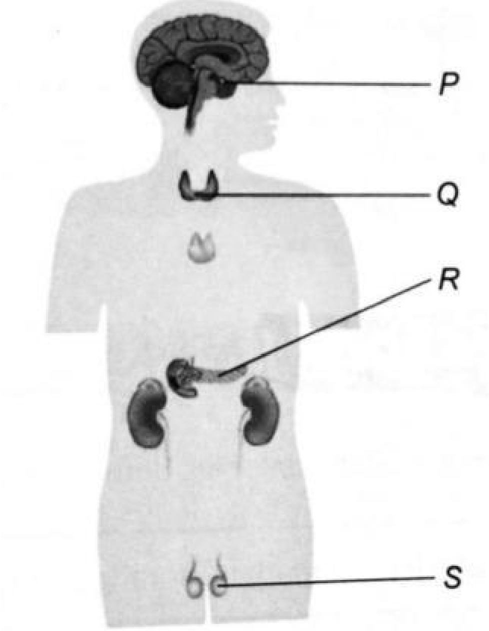
....

....

[2 markah] *[2 marks]*

LIVEWORKSHEETS

3. Rajah 5 menunjukkan sistem endokrin manusia.
Diagram 5 shows the human endocrine system.



Rajah 5 *Diagram* 5

(a) Nyatakan kelenjar yang merupakan kelenjar induk dalam sistem endokrin manusia.
State the gland that is the master gland in the human endocrine system.

……………………………………………………………………………………………..

[1 markah/ *mark*]

(b) (i) Namakan hormon yang dirembeskan oleh kelenjar Q.
Name the hormone secreted by gland Q.

……………………………………………………………………………………………..

[1 markah/ *mark*]

(ii) Nyatakan kesan pada manusia jika hormon dalam soalan 5 (b)(i) **tidak** dirembeskan secukupnya ke dalam badan.
State the effect on humans if the hormone in question 5 (b)(i) ***is not*** *adequately secreted into the body.*

……………………………………………………………………………………………..

……………………………………………………………………………………………..

[1 markah/ *mark*]

LIVEWORKSHEETS

(c) (i) Namakan kelenjar R.
Name gland R.

…………………………………………………………………………………………………..
[1 markah/ *mark*]

(ii) Bagaimanakah kegagalan kelenjar R berfungsi boleh menyebabkan seseorang itu mengalami penyakit diabetes melitus?
How can the failure of gland R cause a person to have diabetes melitus?

…………………………………………………………………………………………………..
[1 markah/ *mark*]

(d) Namakan hormon yang dirembeskan oleh kelenjar S.
Name the hormone secreted by gland S.

…………………………………………………………………………………………………..
[1 markah/ *mark*]

LIVEWORKSHEETS

MODUL i-READY SAINS SPM

<u>BAHAGIAN C</u>

1. Dadah ialah sejenis bahan kimia yang banyak digunakan dalam bidang perubatan. Namun begitu, pengambilan dadah secara berlebihan atau tanpa preskripsi doktor mengakibatkan penyalahgunaan dadah.
Drug is a type of chemical substance that is widely used in the medical field. However, taking drugs excessively or without doctor's prescription results in drug abuse.
(*a*) (i) Berikan **satu** contoh dadah penenang dan dadah perangsang.
Give **one** *example of a depressant and a stimulant.*

[2 *markah*] [2 *marks*]

(ii) Rajah 12.1 menunjukkan dua contoh dadah.
Diagram 12.1 *shows two examples of drugs.*

LSD (dietilamida asid lisergik)
LSD (lysergic acid diethylamide)

Ketamin
Ketamine

Rajah 12.1
Diagram 12.1

Nyatakan **dua** kesan penyalahgunaan dadah tersebut terhadap koordinasi badan.
State **two** *effects of drug abuse on body coordination.*

[2 *markah*] [2 *marks*]

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

LIVEWORKSHEETS

(*b*) Penyalahgunaan dadah masih merupakan ancaman kepada keselamatan, sosial, kesihatan dan ekonomi di negara kita.
Jadual 5 menunjukkan bilangan penagih dadah pada tahun 2021 mengikut kategori umur yang dikeluarkan oleh Agensi Antidadah Kebangsaan.
Drug abuse is still a threat to security, social, health and economy in our country. Table 5 *shows the number of drug addicts in* 2021 *by age category issued by National Anti-drug Agency .*

Kategori Umur *Age Category*	Kanak-kanak (0 - 12 tahun) *Children* (0 - 12 *years*)	Remaja (13 - 18 tahun) *Teenager* (13 - 18 *years*)	Belia (19 - 39 tahun) *Adolescent* (19 - 39 *years*)	Dewasa (> 40 tahun) *Adult* (> 40 *years*)
Bilangan *Number*	2	1,961	81,112	39,959

Sumber / *Source*: adk.gov.my

Jadual 5
Table 5

Berdasarkan Jadual 5, nyatakan **satu** perbezaan jumlah bilangan penagih dadah mengikut kategori umur.
Sebagai seorang murid, cadangkan langkah-langkah yang boleh diambil bagi mengurangkan bilangan penagih dadah dalam kalangan remaja.
Based on Table 5*, state* **one** *difference in the number of drug addicts according to age.*
As a student, suggest steps that can be taken to reduce the number of drug abuse among teenagers.

[4 *markah*] [4 *marks*]

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

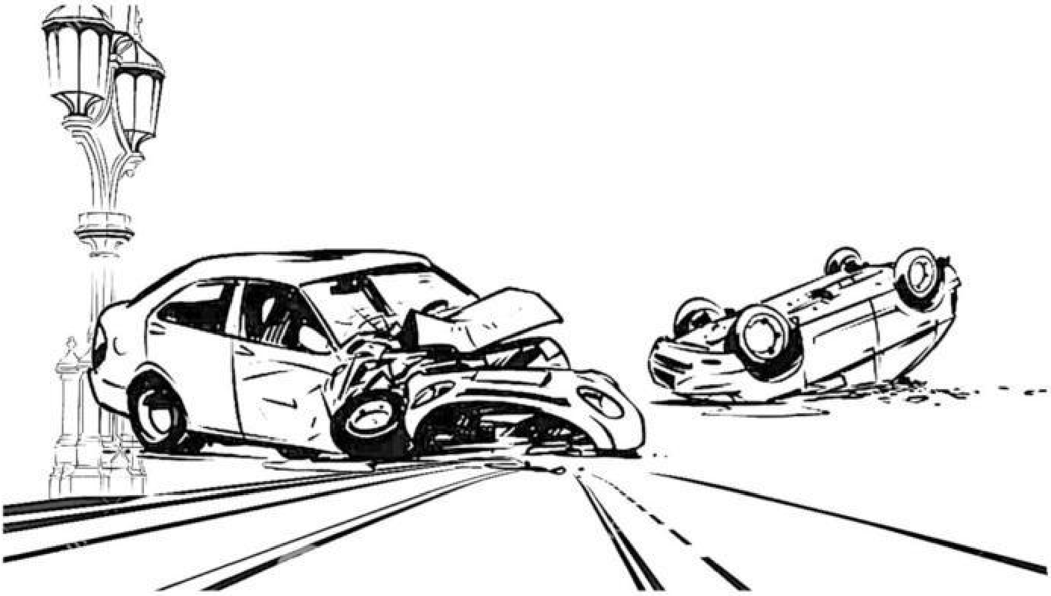
…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

LIVEWORKSHEETS

b. Rajah 12.2 menunjukkan kemalangan akibat pemanduan bawah pengaruh alkohol.
Diagram 12.2 shows an accident coused by driving under the influence of alcohol.



Rajah 12.2
Diagram 12.2

Sebagai presiden Kelab Kesihatan sekolah, anda perlu memberikan ceramah tentang kesan buruk pengambilan alkohol secara berlebihan. Wajarkan jawapan anda.
As the president of the school's Health Club, you have to give a talk about the harmful effects of excessive alcohol consumption. Justify your answer.

[4 *markah*] [4 *marks*]

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

……………………………………………………………………………………………………..

LIVEWORKSHEETS