

1 Labelkan sistem saraf manusia yang diberi di bawah. **TP1**
Label the human nervous system given below.

Saraf tunjang Saraf spina Sistem saraf pusat Saraf kranium Otak Sistem saraf periferi
Spinal cord Spinal nerves Central nervous system Cranial nerves Brain Peripheral nervous system

(c) _____

(pusat kawalan badan
body control centre)

(a) _____

(b) _____

(d) _____

(12 pasang/
pairs)

(e) _____

(31 pasang/
pairs)

(f) _____

Galeri Info
Saraf kranium menghubungkan otak dengan organ deria. Saraf spina menghubungkan saraf tunjang dengan otot rangka.
The cranial nerve connects the brain with the sensory organs. The spinal nerves connect the spinal cord to the skeletal muscle.

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2 Baca perbualan di bawah. Kemudian, tulis jawapan yang mungkin diberikan oleh murid itu dalam ruang yang disediakan dalam rajah di bawah. **TP4/KBAT**
Read the conversation below. Then, write the possible answers given by the student in the space provided in the diagram below.

Sistem saraf manusia mengawal dan mengkoordinasi organ dan bahagian badan supaya berfungsi secara harmoni dan cekap. Apakah kepentingan lain sistem saraf manusia?
The human nervous system controls and coordinates the organs and body parts to work harmoniously and efficiently. What are the other importances of the human nervous system?



Maklumat/*Information*
Rangsangan/*Stimuli*
Gerak balas/*Response*
Impuls/*Impulses*
Mentafsir/*Interpret*

Sistem saraf manusia dapat/*The human nervous system is able to:*

- (a) mengesan _____ / *detect* _____.
- (b) menghantar _____ dalam bentuk _____.
send _____ *in the form of* _____.
- (c) _____ impuls. / _____ *impulses.*
- (d) menghasilkan _____ yang sesuai.
produce an appropriate _____.

1 Bezakan tindakan terkawal dan luar kawal di bawah. **TP2**
Differentiate the voluntary and involuntary actions below.

Membaca <i>Reading</i>	Tidak sedar <i>Unconscious</i>	Tersentuh <i>In contact</i>	Bercakap <i>Talking</i>	Tangan <i>Hand</i>
Menulis <i>Writing</i>	Sedar <i>Conscious</i>	Pernafasan <i>Breathing</i>	Peristalsis <i>Peristalsis</i>	Denyutan jantung <i>Heartbeat</i>

(a) **Tindakan terkawal**
Voluntary actions

(i) Tindakan yang dilakukan secara _____
Actions that are taken under _____ control

(ii) **Contoh tindakan:**
Examples of actions:

(b) **Tindakan luar kawal**
Involuntary actions

(i) Tindakan yang berlaku secara _____
Actions that occur under _____ control.

(ii) **Contoh tindakan:**
Examples of actions:

- Medulla oblongata:
Medulla oblongata:



Praktis
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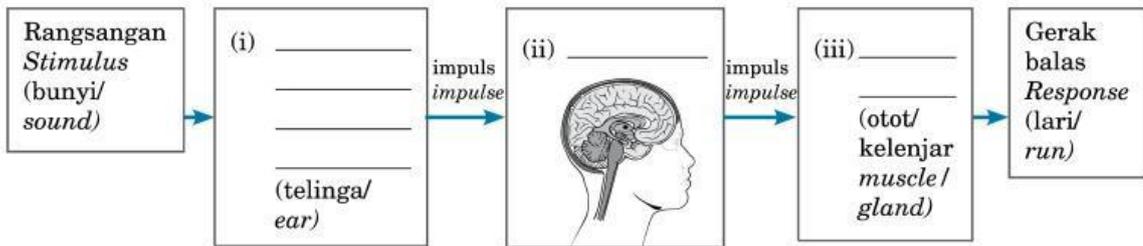
• **Saraf tunjang/Spinal cord:**

Menarik _____ apabila _____ cerek panas
Withdrawal of _____ when _____ with a hot kettle

2 Lengkapkan peta alir tentang urutan aliran impuls dalam tindakan terkawal dan luar kawal. **TP1**
Complete the flow map with the sequences on the pathway of an impulse in voluntary and involuntary actions.

Saraf tunjang <i>Spinal cord</i>	Efektor <i>Effector</i>	Afektor (reseptor) <i>Affector (receptor)</i>	Otak <i>Brain</i>
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(a) **Tindakan terkawal/Voluntary action**



(b) **Tindakan luar kawal/Involuntary action**

