



Summative Practice 1

Answer the following questions:

1. Mark '✓' for the correct statement and '×' for the incorrect statement about the human nervous system.

(a) The peripheral nervous system is made up of nerves connecting the brain with the spinal cord.	
(b) Without a functioning brain, voluntary actions cannot be carried out.	
(c) Playing badminton is an involuntary action.	
(d) Impulses can only be interpreted by the brain.	

2. Figure 1 shows structures P, Q and R of the human nervous system.

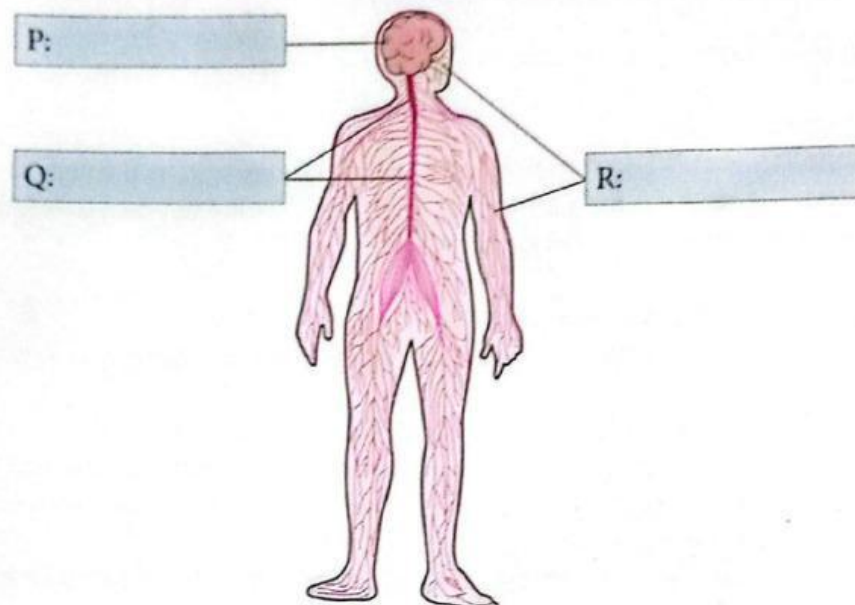
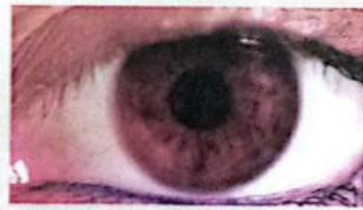


Figure 1

Label P, Q and R in Figure 1.

3. Figure 2 shows responses A and B of the eye.



Response A



Response B

Figure 2

(a) State the responses shown in Figure 2.

bright

Changes in the [] of the pupil of the eye.

Sun

intensity

(b) State the stimuli that cause these responses.

larger

[] of light which enters the eye

size

(c) How do the stimuli cause these responses?

lower

The [] the intensity of light directed towards the eye, the [] the size of the pupil of the eye.

retina

(d) These responses protect the eye especially the retina by preventing light of excessive intensity from entering the eye. During the solar eclipse, explain why we should observe this event on the water surface in a basin of water.

During a solar eclipse, the [] rays of the [] will enter the eye and damage the cells of the []

4. In a science class, Azura studies the mechanisms of hearing and sight.

(a) Draw **one** flow chart that shows the pathway of sound from a source of sound entering the ear.

Ossicles

Sound

Cochlea

Auditory nerve

Eardrum

Brain

Earlobe

Ear canal

Oval window

(b) Draw **one** flow chart that shows the pathway of light from an object entering the eye.

Light

Aqueous humour

Brain

Cornea

Eye lens

Optic nerve

Optic nerve

Retina

Vitreous humour

5. Figure 3 shows the structure of the human skin.

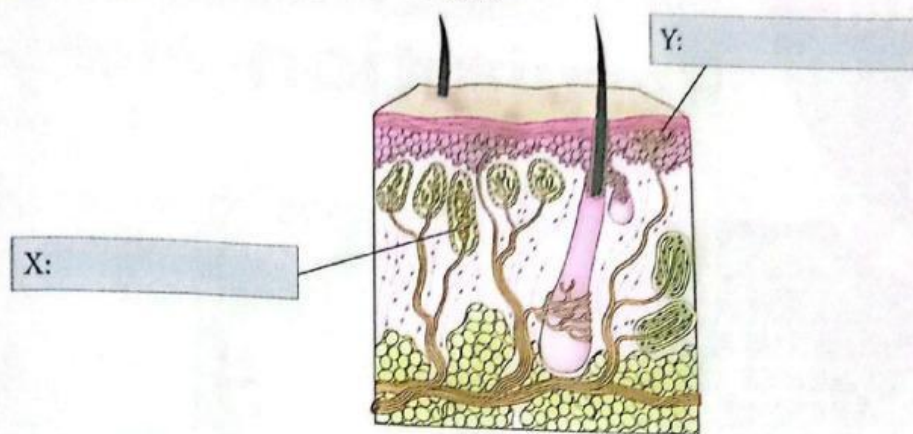


Figure 3

(a) Label X and Y in Figure 3.

(b) Explain why the fingertip and not the palm of the hand is used to detect Braille symbols.

is more sensitive towards touch stimuli compared to the of the hand. Fingertips has layer of epidermis and touch receptors compared to the palm of the hands

- (c) Mazlan classifies the tongue as skin that possesses taste receptors. Do you agree with the classification of the tongue as skin? Explain your answer. 

The tongue is a _____ organ that has _____ known as _____ on the _____ of the tongue which protected by skin _____.

epidermis

receptors

sensory

surface

taste buds

6. (a) What is the importance of the sense of smell when we are in the science laboratory? Give **one** example. 

The sense of smell helps us to detect danger such as _____ of gas that might occur in the science laboratory. For example, we can detect the presence of _____ gases such as chlorine and _____ from their _____.

ammonia

dangerous

leakage

smell

- (b) Why are dogs in police units trained to detect the presence of drugs kept in bags? 

Dogs have a very sensitive sense of _____ because they have more _____ cells for smell than human and are more _____ to analyse smell than human.

efficient

sensory

smell

7. (a) State **two** responses in plants that help photosynthesis.

Positive _____ - Shoots of plants grow towards the direction of _____

Positive _____ - Roots of the plants grow towards the direction of _____

hydrotropism

light

phototropism

water

- (b) How do the two responses of plants in question 7(a) help photosynthesis?

Positive _____ ensures shoots and leaves of plants obtain sufficient _____ to make food through photosynthesis.

hydrotropism

phototropism

root

sunlight

Positive _____ allows _____ of plants to grow towards water so that they can absorb water to enable plants to carry out photosynthesis.