

NAME: _____ DATE: _____

THE NERVOUS SYSTEM

SECTION A

1. Complete the following sentences by writing the correct words on the lines provided. Not all words will be used.

Skin	Sense	Reflex	Taste	Stimulus	Response	Synapse
			Effector			

- a. The traffic light turns green, and the driver steps on the gas pedal to make the car move forward. The green traffic light acted as a(n) _____ that caused a response in the driver.
- b. In order for a nerve impulse to pass from an axon tip to the next structure, it must cross a space called a(n) _____.
- c. If you accidentally touch a hot pan, you immediately jerk your hand away without thinking, before you even feel pain. This type of response is known as a(n) _____.
- d. Each of the five specific _____ organ picks up a different kind of information about the environment.
- e. The _____ is the organ associated with the sense of touch.
- f. The flavor of food is influenced by the senses of smell and _____.

[6 mks]

2. a. Complete the following table with these drugs:

ALCOHOL

COCAINE

HEROIN

LSD

(8 mks)

STIMULANTS	DEPRESSANTS	HALLUCINOGENS	OPIOIDS

- b. Match the type of drug with its description.

DRUG

Depressant

Opioid

Stimulant

Hallucinogen

DESCRIPTION

- A drug that speeds up the nervous system.
- A drug that makes a person experience what is not there.
- A drug that slows down the nervous system.
- A drug that is a powerful painkiller.

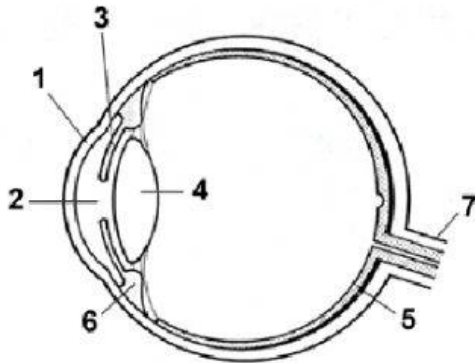
SECTION TWO.

- 1 Match the number of the part of the eye with the correct label. Type the number in the box beside the correct label.

	Lens
	Cornea
	Retina

	Ciliary muscle
	Optic nerve
	Iris

[6 mks]



a. Write the number of the **parts** that bend light rays. _____ and _____ [2 mks]

b. Write the number of the **parts** that change when the light gets brighter or dimmer. _____ and _____ [2 mks]

c. Write the number of the **parts** that change when looking at near or far objects. _____ ,and _____ [2 mks]

d. When the image forms on the retina of the eye, it is different from the actual object in three ways. Click on the features that describe how the image appears on the retina.

UPSIDE DOWN

DARKER

SMALLER

HAZY

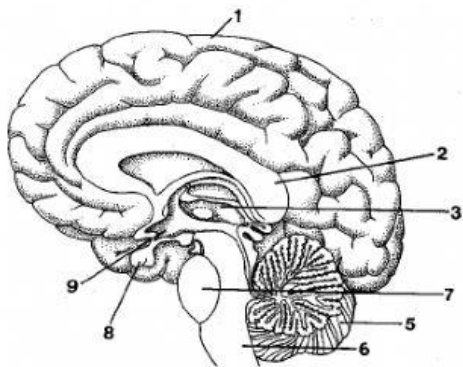
DISTORTED

INVERTED

CROOKED

[3 mks]

- 2 Label the following parts of the brain as indicated by the lines to the right.



	Medulla Oblongata
	Cerebrum
	Hypothalamus

	Cerebellum
	Pituitary gland

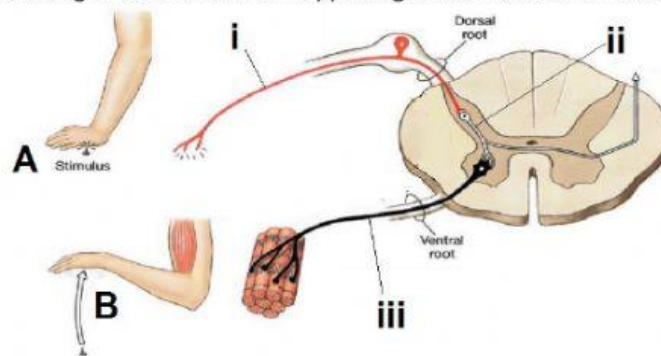
[5 mks]

a. Which part of the brain is helping you to remember the correct answers for this test? _____ [1 mk]

b. Mila can no longer remember her name after an head injury. She probably damaged her _____. [1 mk]

c. Sven cannot breathe, blink or swallow on his own after a head injury. He probably damaged his _____. [1 mk]

3. The following diagram shows a diagram of a common happening of the human nervous system.



a. Is this a diagram of a reflex action or a reflex arc? _____ [1 mk]

b. What is happening at:

A _____ [1 mk]

B _____ [1 mk]

c. Write the names of the nerve cells labelled i, ii and iii. [3 mks]

i _____ ii _____ iii _____

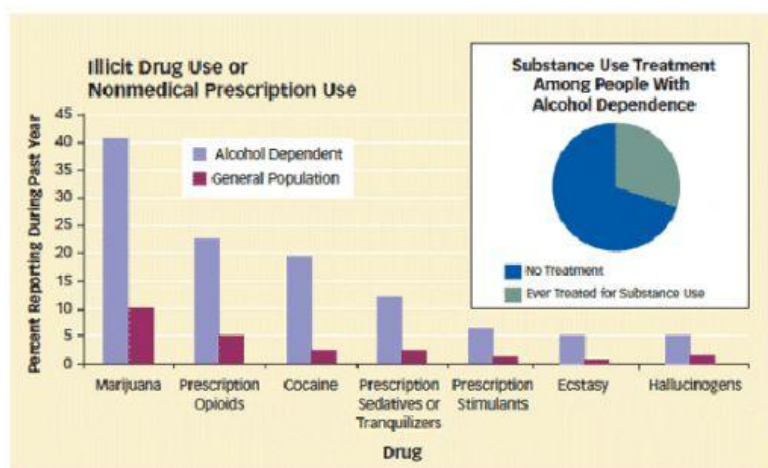
4. The following steps of the reflex arc are **NOT** in order.

- | | | |
|------------------------|---------------------------------|------------------------------|
| 1. axon of motor nerve | 2. sensory receptor in the skin | 3. cell body of motor neuron |
| 4. interneuron | 5. axon of sensory neuron | 6. skeletal muscles |

Which response below places them in the correct order? [1 mk]

- A. 1, 3, 2, 4, 5, 6 B. 6, 5, 4, 3, 1, 2 C. 2, 5, 4, 3, 1, 6 D. 2, 3, 6, 5, 1, 4

5. Look at the graph below and answer the following questions. [2 mks]



a. What percentage of respondents used marijuana but not alcohol during the past year?

b. What percentage of respondents used cocaine and alcohol during the past year?

SECTION B

1. A change or signal in the environment that can make an organism react is called a(n) _____.
 - A. stimulus.
 - B. reaction.
 - C. impulse.
 - D. response
2. Suppose that you close a window because you notice that rain is falling. Your action in closing the window is a(n) _____.
 - A. involuntary reaction.
 - B. depressant.
 - C. stimulus.
 - D. response.
3. Nearsightedness and farsightedness are caused by _____.
 - A. problem in the shape of the eyeball.
 - B. problem in the structure of the retina.
 - C. the inability of the iris to change size.
 - D. damage to receptor cells in the retina.
4. What part of a neuron carries nerve impulses away from the cell body?
 - A. axon
 - B. synapse
 - C. dendrite
 - D. nucleus
5. A motor neuron sends an impulse to _____.
 - A. a muscle or gland.
 - B. a sensory neuron.
 - C. an interneuron.
 - D. another motor neuron
6. A synapse is the space between _____.
 - A. any two cells touching
 - B. the brain and spinal cord.
 - C. a dendrite and a cell body of two cells.
 - D. an receptor and effector.
7. Pain is an important sensation, because it _____.
 - A. is unpleasant.
 - B. helps the immune system function.
 - C. can alert the body to danger.
 - D. is a depressant.
8. The regions that make up the brain include the cerebrum, cerebellum, and _____.
 - A. senses.
 - B. medulla.
 - C. spinal cord.
 - D. retina.
9. The brain and spinal cord make up the _____.
 - A. central nervous system.
 - B. peripheral nervous system.
 - C. somatic nervous system.
 - D. autonomic nervous system.
10. Cone cells enable you to see _____.
 - A. colors.
 - B. black and white.
 - C. at night.
 - D. nearby objects
11. Because of the way in which the lens of the eye bends light rays, which of the following is NOT a description of the image produced by the lens?
 - A. smaller
 - B. usually blurred
 - C. inverted
 - D. upside down
12. The pupil of a person's eye is likely to become smaller when the _____.
 - A. object viewed is moving.
 - B. other eye is closed.
 - C. person moves from a dim room into bright sunlight.
 - D. person moves from bright sunlight into a dim room.
13. Which part of the brain is responsible for controlling body temperature?
 - A. Cerebrum
 - B. Cerebellum
 - C. Medulla oblongata
 - D. Hypothalamus
14. Which of the following is not a function of nerves in the skin?
 - A. Feel pain
 - B. Feel heat
 - C. Feel fear
 - D. Feel pressure

[14 mks]