



505313-LLLP-1-2009-1-IT-KA2-KA2MP

EXERCISES AND ACTIVITIES

EXERCISE 1. UNSCRAMBLE THE WORDS AND THEN MATCH EACH ONE TO A DEFINITION

- | | |
|-------------|--------------------------------|
| 1. LULSK | A It protects the brain |
| 2. RERVBTEA | B It is filtered in the brain |
| 3. DHAE | C It protects the CNS |
| 4. EGSMINN | D It is grey and white |
| 5. TERMAT | E They protect the spinal cord |
| 6. OLBOD | F It contains the brain |

(1A / 2E / 3F / 4C / 5D / 6B)

EXERCISE 2. COMPLETE EACH DESCRIPTION WITH THE CORRECT WORD.

1.are three – layered membranes.
2. The nerves that connect the CNS to the rest of the body form the.....
3. The brain and the spinal cord make up the
4. The.....runs from the neck to the hip area.
5. The.....is divided into CNS and PNS.
6. The.....contains the spinal cord .

(spinal cavity – spinal cord – nervous system – PNS – CNS – meninges)
(.....6..... -4..... -5..... -2... - ..3... - 1.....)

EXERCISE 3. WRITE THE CORRECT NAME ON EACH LINE DIAPOSITIVA N° 6

EXERCISE 4. WRITE THE CORRECT NAME ON EACH LINE DIAPOSITIVA N° 12

EXERCISE 5. UNSCRAMBLE THE WORDS AND THEN MATCH EACH ONE TO A DEFINITION

- | | |
|--------------|--|
| 1. AGILL | A They send and receive electro – chemical signals. |
| 2. PENSYAS | B It is a long extension of a nerve cell. |
| 3. NEMILY | C They bring information to the cell body. |
| 4. SENROUN | D This cell provides support functions for neurons |
| 5. TRINDESDE | E It surrounds and insulates the axon |
| 6. NOXA | F It is the gap between the axon terminal and the receiving cell |

(1D / 2F / 3E / 4A / 5C / 6B)

EXERCISE 6. ANSWER THE FOLLOWING QUESTIONS

1. Which are the cells that make up the brain and spinal cord?
2. What's the difference between them?
3. Which are the three parts that make up the neuron?
4. What are dendrites?
5. What's the axon?
6. What's the function of myelin?

EXERCISE 7. READ THE FOLLOWING SENTENCES AND DECIDE IF THEY ARE TRUE OR FALSE. CORRECT THE FALSE ONES.

1. Only glial cells make up the brain. TF
2. Glial cells transmit and receive electro signal to and from the brain. TF
3. The brain contains billions of neurons. TF
4. The number of glial cells is the same as the number of neurons. TF
5. All the neurons have the same size and length. TF
6. The neuron is made up of three parts. TF
7. The soma is the central part of the neuron. TF
8. Dendrites are branches that lead the nerve signal to the brain. TF
9. The axon takes information away from the cell body. TF
10. Myelin is a substance that insulates the axon. TF

EXERCISE 8. COMPLETE THE SENTENCES WITH THE RIGHT WORD:

1. The brain is divided into the right..... and the left
2. Each part is specialized for some
3. The two parts communicate through the
4. The side of the brain controls the left side of the body and the side of the brain controls the right side of the body
5. Damage to one side of the brain affects the side of the body
6. The left hemisphere is dominant for abilities and , while the right hemisphere is for.....imagery and..... abilities

EXERCISE 9. HERE IS A SHORT REVIEW ABOUT THE 4 LOBES OF THE BRAIN. TAKE A LOOK AT THIS FIGURE AND THEN ANSWER THE QUESTIONS. THE NUMBERS ON THE FIGURE CORRESPOND TO THE NUMBER OF THE QUESTION. DIAPOSITIVA N°22

1. The lobe of the brain important for vision is called
2. The lobe of the brain important for the sense of touch is called
3. The lobe of the brain important for hearing is called.....
4. The lobe of the brain important for reasoning and problem- solving is called.....

EXERCISE 10. READ THE SENTENCES AND CHOOSE THE CORRECT STATEMENT

1. Babies' brain is **very heavy / quite light**
2. The number of brain cells **increases / doesn't increase** as a child grows
3. Men's brain is **heavier / lighter** than women's brain
4. The brain consists of **soft / hard** substance
5. Brain cells **can / can't** resist for a long time without oxygen

EXERCISE 11. COMPLETE EACH DESCRIPTION WITH THE CORRECT WORD.

1. The diencephalon is surrounded by the.....
2. The diencephalon includes the,the hypothalamus and the epithalamus
3. The is a small region below the thalamus.
4. The is involved with the beginning of puberty
5. The cerebellum is located below the.....of the cerebrum.
6. Thecontains as many neurons as all the rest of the brain.

(cerebellum – epithalamus – occipital lobes – thalamus – hypothalamus – cerebral hemisphere)

(....6... -4... -5... -2... -3.... - 1....)

EXERCISE 12. READ THE FOLLOWING SENTENCES AND DECIDE IF THEY ARE TRUE OR FALSE. CORRECT THE FALSE ONES

1. The brain stem consists of four parts. TF
2. The brain stem is the region between the diencephalon and the cerebrum. TF
3. The midbrain is the superior portion of the brain stem. TF
4. The medulla oblongata extends upwards from the pons. TF
5. The spinal cord carries motor and sensory information. TF
6. The reflexes are responses to stimuli .TF

Exercise 13. READ THE STATEMENTS AND DECIDE IF THEY ARE TRUE OR FALSE

1. The brain is always working T F
2. The brain controls our feelings and thinking only T F
3. The brain can be compared to a central computer T F
4. The nervous system sends messages to the brain T F
5. The nervous system works through the spinal cord T F
6. The message from the brain to the body takes much time T F
7. The peripheral nervous system is formed by the spinal cord T F
8. The vertebrae are bones that protect the spinal cord T F

9. The vertebrae are protected by meninges
10. The cerebrospinal fluid protects the brain

T F
T F

TEST

READ AND TICK THE RIGHT ANSWER (____/10P)

It carries messages from the brain to the body

- Blood
- Spinal cord
- Dendrite
- Axon

It contains the brain

- Skull
- Vertebrae
- Spinal cavity
- Head

They protect the CNS

- Meninges
- Vertebrae
- Axons
- Dendrites

A long extension of a nerve cell is called

- Dendrites
- Soma
- Axon
- Cell body

It surrounds and insulates the axon

- Grey matter
- Myelin
- Vertebrae
- Synapse

The Schwann's cells are types of

- Neurons
- Glial cells
- Axons
- dendrites

It contains the centres of hearing and memory

- the parietal lobe
- the temporal lobe
- the occipital lobe
- the frontal lobe

The thalamus, the hypothalamus and the epithalamus are all parts of

- the cerebrum
- the cerebellum
- the diencephalon
- the brain stem

It works like a biological clock for the body

- the hypothalamus
- the thalamus
- the epithalamus
- the pons

It favours coordinated, fluent body movement

- the midbrain
- the medulla
- the pons
- the spinal cord

**READ THE FOLLOWING SENTENCES AND DECIDE IF THEY ARE TRUE OR FALSE.
CORRECT THE FALSE ONES (____/10P)**

- | | |
|--|-----|
| 1. The CNS includes the brain and the brain stem | T F |
| 2. The spinal cord is protected by the vertebrae | T F |
| 3. The dura mater , the arachnoid and the pia mater are meninges | T F |
| 4. The brain and the spinal cord are made up of glial cells | T F |
| 5. The number of glial cells is the same as the number of neurons. | T F |
| 6. All the neurons have the same size and length. | T F |
| 7. The axon takes information away from the cell body. | T F |
| 8. All the activities of the body are devoted to the care and protection of the brain | T F |
| 9. The woman brain contains more axons than the man brain | T F |
| 10. The spinal cord is a bundle of nerves that connects the brain to the other parts of the body | T F |

COMPLETE THE TEXT WITH THE RIGHT WORD (____/10P)

The largest and most complex portion of the brain is the It controls thought, learning, and many other complex activities. It is divided into the left and the right; they are joined by a longitudinal....., which is calledThe right side of the brain controls the of the body, and vice versa. Each cerebral hemisphere is divided into four: the lobe, which is responsible for reasoning, emotions, judgment, and voluntary movement; the lobe, which contains the centres of hearing, smells, and memory; the lobe, which is responsible for the touch and spoken language abilities, and the lobe, which is responsible for the centres of vision and reading abilities .

ANSWER THE FOLLOWING QUESTIONS. (____/30P)

1. What are meninges?
2. What's the difference between white matter and grey matter?
3. What is the neuron and what does it consist of?
4. What's the role of dendrites?
5. What are glial cells and which are their functions?
6. Where is the cerebellum located?
7. Which are the parts that make up the brain?

8. What are the two emispheres responsible for?
9. What does the medulla oblongata control?
10. Which are the functions of the spinal cord?

GRIGLIA DI VALUTAZIONE

FASCIA	VOTO
1-6	1
7-12	2
13-18	3
19-24	4
25-30	5
31-36	6
37-42	7
43-48	8
49-54	9
55-60	10