This is a Class 1 exam

Lebanon Evangelical School
for Boys and Girls
Loueizeh - Baabda

Stage Exam 03
10FEB2026

Do NOT write in this box. Your MARK will be placed here.

Subject :	Life Science
Class :	7A, 7B, 7C and 7E
Teacher :	Hazar Al Gharib
Duration :	1 hour

Please write your answers on a separate sheet of paper NOT on the questions sheet.

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

I- Identify the letter of the choice that best completes or answers the statement. (1pt. each)

1. Parts of the body that respond to a stimulus are called _____.

A. target organs
B. effectors
C. muscles and glands
D. all of the above

2. The endocrine system uses _____ to control long-term body processes.

A. electrical signals
B. hormones
C. neurotransmitters
D. blood

3. What does the parathyroid hormone regulate in the body?

A. Metabolism
B. Growth
C. Calcium levels in blood and bones
D. Reproduction

4. The spinal cord serves as a duct or tube of signals between the _____ and the rest of the body.

A. heart
B. effectors
C. brain
D. digestive system

5. The most common neuron structure is:

A. one axon and many dendrites
B. one fiber that serves as both axon and dendrite
C. one dendrite and many axons
D. one dendrite and one axon

6. A reflex is all of the following except?

A. Not learned in response to a stimulus
B. Under conscious control
C. Not under conscious control
D. A sudden, involuntary movement

7. A function of the nervous system is to:

A. Digest food
B. Transmit messages from one part of the body to another
C. Pump blood
D. All of the above

8. The autonomic peripheral nervous system:

A. Controls skeletal muscles as well as external sensory organs
B. Controls involuntary muscles, such as smooth and cardiac muscles
C. Prepares the body for dealing with emergency situations
D. None of the above

II- Answer with true or false. If false, correct the underlined word(s). (1pt. each)

1. Brushing the teeth is a voluntary action.
2. Receptors in the auditory system detect sound signals.
3. Physical growth is an involuntary body action.
4. Salivating when chewing is a voluntary action.

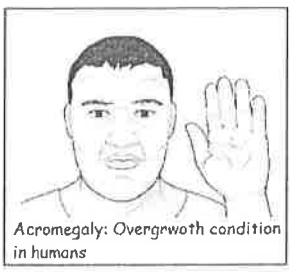
III- Give the right word(s) to complete the statements below. (1pt. each)

Like the nervous system, the endocrine system sends __1.__ to the body which are called hormones. While nerve signals travel through __2.__, hormones travel in __3.__. The nervous system processes information about the body's __4.__ environments and its responses can be voluntary or involuntary, while the endocrine system processes information about the body's __5.__ environment and its responses are __6.__.

IV- Give short answers to the following questions. (1 pt. each)

1. **Name** the gland that regulates the level of sugar in blood.
2. **Define** synapse.
3. **Explain** what might happen if your optic nerves, the nerves that connect your eyes to your brain, are damaged.

V- Read the text carefully and answer the questions below by referring to the text. (1pt. each)


Acromegaly: Overgrwoth condition in humans

Pituitary gland disorders arise when the "master gland" produces too much or too little of its hormones, often caused by tumors. The cells that produce growth hormone in the pituitary gland are called somatotropic cells, and the targeted cells are skeletal muscle and bone cells to promote growth. Acromegaly is a rare, serious hormonal disorder caused by the overproduction of growth hormone, often due to a pituitary tumor. Acromegaly causes gradual enlargement of hands, feet, facial features (jaw, nose, forehead), and internal organs, leading to complications like joint pain, diabetes, sleep apnea, and high blood pressure if untreated. Treating acromegaly includes surgery, medication, and radiation to manage growth hormone levels and shrink tumors.

1. Define acromegaly.
2. Identify the endocrine gland involved acromegaly.
3. What are the symptoms or signs of acromegaly?
4. Specify the complications of acromegaly if untreated.

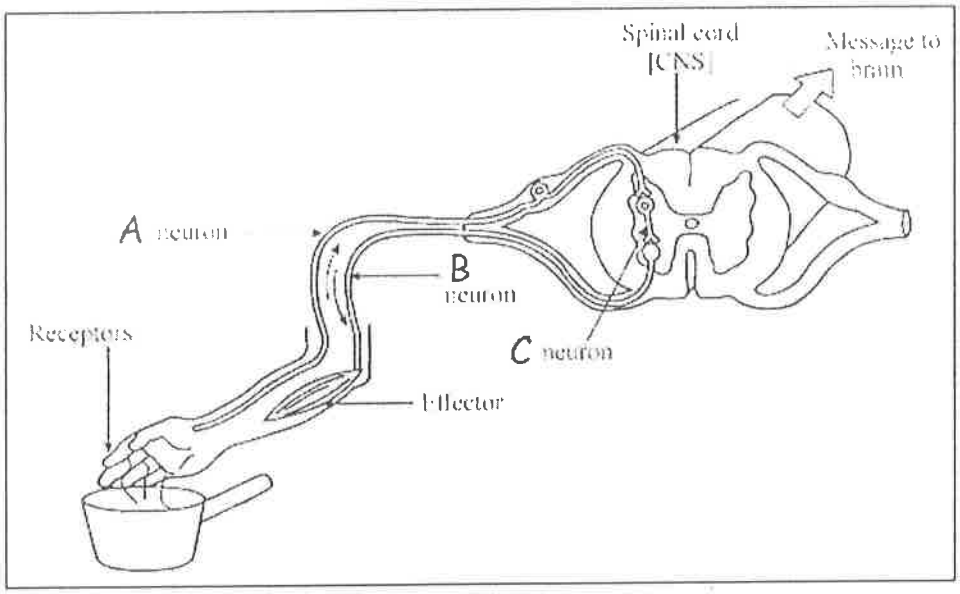
5. List two ways to manage growth hormone levels and shrink pituitary tumors.

6. Name *the cells which produce growth hormone* and *the target cells of growth hormone.*

7. Based on your knowledge, explain why the pituitary gland is described by the "master gland".

VI- Refer to the text, the figure, and/or your knowledge to answer the questions that follow. (1pt. each)

Tarek was preparing lunch when he accidentally touched a hot pot. He immediately pulled his hand away, then he felt pain. The figure below shows the immediate, rapid, and involuntary response provoked when Tarek touched the hot pot in order to protect his body from harm, occurring before the brain even registered pain.



1. Indicate the stimulus illustrated in the figure.

2. Refer to the figure to name the involved *receptors* and the *sensory organ* in which those receptors are located.

3. Indicate the effector illustrated in the figure.

4. Label the neurons (A, B, and C) revealed in the figure.

5. By referring to the figure and text, how could you prove that Tarek's response is a reflex response?

SE03/20252026/7ABCE /46

I- 1. D
2. B
3. C
4. C
5. A
6. B
7. B
8. B (8)

II- 1. True
2. True
3. True
4. False, involuntary (5)

III- 1. chemical signals
2. nerves
3. blood
4. external and internal
5. internal
6. involuntary (7)

IV- 1. Pancreas (1)
2. A synapse is the gap between any two neurons representing the site of their communication. (2)
3. The consequences range from blurred vision to blindness since the optic nerve is the cable that transmits information from the eyes to the brain. (2)

V-1. Acromegaly is a rare, serious hormonal disorder caused by the overproduction of growth hormone. (2)

2. Pituitary gland (1)

3. Gradual enlargement of hands, feet, facial features, and internal organs. (2)

4. Joint pain, diabetes, sleep apnea, and high blood pressure (4)

5. Surgery and medication (2)

6. Growth hormone is produced by somatotropic cells and targets skeletal muscle and bone cells. (3)

7. because it regulates or controls the functions of other glands. (1)

VI-1stimulus= heat or high temperature (0.5)

2. receptors = heat receptors (0.5)
   sensory organ= skin (0.5)

3. effector = muscles of the arm (1)

4. A = sensory neuron (0.5)
   B= motor neuron (0.5)
   C= interneuron (0.5)

5. immediate, rapid, involuntary, protective and controlled by the spinal cord. (2)