



UANL



# Evidence Portfolio

## 2<sup>nd</sup> Extraordinary Opportunity

# Biology in Health

Student's Name: \_\_\_\_\_

ID Number: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / 2022

Teacher: \_\_\_\_\_ Group: \_\_\_\_\_

This portfolio is part of the 60% of the grade. This value will be obtained as long as it complies with the following requirements:

1. Follow **the instructions provided by the teacher** for the filling out of this portfolio.
2. Write your **full identification data**.
3. **Upload and send** this portfolio **in PDF format**, the **day** and **time** the **teacher assigns it** in the team **Tasks section** of the corresponding **subject team in MS Teams**, where your teacher will check it.
4. **PLEASE ADD YOUR NAME ON EACH PAGE.**

### DISCLAIMER

Plagiarism and trade of academic material contained in this portfolio will be sanctioned according to the terms of the University Legislation.



# Biology in Health

## 2<sup>nd</sup> Extraordinary Portfolio

Full Name of the Student:

\_\_\_\_\_

Group: \_\_\_\_\_ Shift: \_\_\_\_\_

ID Number: \_\_\_\_\_

Teacher: \_\_\_\_\_

Plagiarism and trade of academic material contained in this portfolio will be sanctioned according to the terms of the University Legislation.

## Important Notice

Read carefully each one of the instructions for the elaboration of this portfolio of evidence, ignoring the above does not release the students from the impact that this could have on the corresponding evaluation of this document by the responsible teacher.

### General Instructions

- ✓ The portfolio represents 60% of the 2<sup>nd</sup> opportunity grade.
- ✓ The portfolio of evidence is **NOT COMPLETED ON COMPUTER.**
- ✓ The portfolio **should be handwritten using blue ink and the student's full name should be written on each page of the portfolio.**
- ✓ The portfolio must be answered in its entirety with cleanliness and good spelling.
- ✓ The portfolio will be evaluated by the teacher according to the rubric attached in this document (see at the end of the document).
- ✓ **The portfolio must be delivered within the established period of and photographs will be taken of the portfolio solved by hand, which will be uploaded as a pdf file in MS Teams.**
- ✓ It is the student's responsibility to check the date in which the portfolio will be delivered and the fact of having several learning units in 2nd opportunity does not take away the student's responsibility to deliver this document in due time and form.
- ✓ The information requested through the different exercises that form the portfolio of evidence should be taken only from the textbook of the Biology in Health learning unit.
- ✓ The failure to comply with each of these instructions, as well as with the evaluation criteria set forth in the rubric, will have an impact on the grade assigned for the portfolio of evidence.
- ✓ **Attach in the portfolio a photograph of the 2nd opportunity payment receipt.**
- ✓ **The portfolio will be used as a guide for the 2nd opportunity exam.**

## Stage 1

### I- Match each of the following concepts with its corresponding definition.

1- Growth	( ) Concept that refers to the state of equilibrium of the organism.
2- Organization	( ) A sequence of nitrogenous bases that combine to form a universal language for all living things.
3- Metabolism	( ) It is defined as the basic microscopic unit that integrates all living beings. Its name derives from the Latin "Cella", which means cell.
4- Homeostasis	( ) It is defined as the loss of balance or homeostasis of the human body and is characterized by the presence of various manifestations known as signs and symptoms.
5- Genetic Code	( ) A set of chemical reactions aimed at the destruction of certain molecules and the formation of totally new ones in the organism.
6- Reproduction	( ) The main objective is the continuation or perpetuation of a species.
7- Stimulus response	( ) These are actions that the organism carries out due to changes that occur internally and externally.
8- Adaptation	( ) Biological process by which present-day organisms arose from more primitive organisms.
9- Evolution	( ) Science that deals with the study of all living beings present in our environment.
10- Health	( ) A process that allows living beings to survive the various changes that occur in their environment.
11- Illness	( ) It is defined as a state of physical, biological, emotional and social well-being and not only as the absence or presence of one or more diseases.
12- Biology	
13- Cell	

### II- Read and analyze the following statements and then place the missing word or words in each of them.

- 1- The \_\_\_\_\_ are cell organelles whose purpose is the production of energy in the form of ATP in cells.
- 2- The \_\_\_\_\_ is a biological barrier formed by a double layer of lipids, which separates the cell's internal environment from the environment.
- 3- The \_\_\_\_\_ is an organelle responsible for protecting the genetic material from damage by physical, chemical and biological agents.

4- The \_\_\_\_\_ are characterized by the absence of a nucleus in their cytoplasm, whereas the \_\_\_\_\_ do possess a nucleus in their cytoplasm

5- The \_\_\_\_\_ is an organelle of plant cells consisting of cellulose, pectin or lignin. Its general functions are to protect and stiffen the cell.

6- The \_\_\_\_\_ are organelles responsible for carrying out the process of protein synthesis.

7- The \_\_\_\_\_ are organelles involved in the process of photosynthesis and in their interior are located structures called thylakoids and in the latter is located the pigment called chlorophyll.

8- The \_\_\_\_\_ is a set of statements that affirm that cells are a basic and functional unit of all living beings, and that diseases originate from damage or problems at the cellular level.

9- \_\_\_\_\_ was the scientist who developed a series of lenses that allowed to magnify 200 times the size of what was observed and these lenses were integrated into his own design of a microscope.

10- \_\_\_\_\_ are the three main characteristics shared by all cell types in the environment.

**Stage 2**

I- **Correctly define each of the following concepts.**

Nutrition

---

---

---

---

Macronutrients and examples

---

---

---

---

Micronutrients and examples

---

---

---

---

Pulmonary Emphysema

---

---

---

---

Peptic Ulcer

---

---

---

---

Kidney stones (renal calculi)

---

---

---

---

**II- Complete the following comparative table about the organs that integrate the digestive system and their respective functions.**

<b>Organ</b>	<b>Functions</b>
	Mechanical digestion by teeth and chemical digestion of starches by saliva.
Esophagus	
	It performs mechanical digestion by means of peristaltic contractions and chemical digestion by means of pepsin and hydrochloric acid.
	It performs chemical digestion with the help of pancreatic juice and also the absorption of nutrients thanks to its villi and microvilli.
Large bowel	
Liver	
	It is responsible for carrying out the production of pancreatic juice, which is released into the small intestine for the chemical digestion of nutrients.
Gallbladder	

### III- Match the following organs with the respective human body function.

1- Nose	( ) Bean-shaped organs responsible for carrying out blood filtration and urine formation. ( ) It is known as the voice box and is located between the pharynx and the trachea.
2- Kidneys	( ) Structures shaped like bunches of grapes, which are highly vascularized and where gas exchange takes place.
3- Trachea	( ) Organ whose function is the temporary storage of urine.
4- Bladder	( ) An anatomical structure formed by incomplete cartilage rings, which provide great resistance and allow air to enter the lungs.
5- Urethra	( ) Organs that allow urine to flow from the kidneys to the bladder.
6- Lungs	( ) It is known as the throat and is located behind the nose and mouth and over the larynx.
7- Alveoli	( ) Cone-shaped organs located in the interior of the thoracic cage and in its interior are located the bronchi, bronchioles and alveoli.
8- Ureters	( ) An organ that allows the expulsion of urine from the bladder to the outside of the human body.
9- Pharynx	( ) Organ responsible for humidifying, filtering and heating the air that enters the respiratory tract.
10- Larynx	

### Stage 3

#### I- Read each of the following questions carefully and write the correct answer(s).

1- Organ made up of four cavities, two atria and two ventricles, which together act as the pump of the circulatory system.

R= \_\_\_\_\_

2- An anatomical structure made up of a series of mineral organs and its general functions are to provide support and protection to various organs, participate in movement and in the production of blood cells, among others.

R= \_\_\_\_\_

3- They are the two main proteins or myofibrils involved in the process of muscle contraction.

R= \_\_\_\_\_

4- Human body apparatus formed by the teamwork of muscles, ligaments, tendons and joints, with the purpose of generating movements.

R= \_\_\_\_\_

5- It is the most extensive organ of the human body. It is composed of three layers called epidermis, dermis and hypodermis. The general function of this organ is to cover and protect the human body from external harmful agents coming from the environment.

R= \_\_\_\_\_

6- Cells responsible for synthesizing the pigment known as melanin, which is responsible for coloring the skin.

R= \_\_\_\_\_

7- An anatomical structure of the locomotor system that is responsible for holding together or aligning the bones in their respective joints.

R= \_\_\_\_\_

8- An anatomical structure defined as the point of union between two bones.

R= \_\_\_\_\_

9- An anatomical structure that allows the union of muscles with bones within the locomotor system.

R= \_\_\_\_\_

10- They are the three main cells that make up the bones.

R= \_\_\_\_\_

**II- Complete the following comparative chart related to the immune system.**

Immunologic system:	
<b>Innate immunity:</b>	<b>Acquired immunity:</b>
<b>Examples (at least 3):</b>	<b>Examples:</b>  ✓ Antibodies:

**Stage 4**

I- Complete the following comparative chart with the main glands of the human body and their respective hormones.

Glands	Hormone	Functions
Neurohipófisis	Growth hormone (Somatotropin)	
	Luteinizing Hormone (LH)	
	Follicle Stimulating Hormone (FSH)	
	Adrenocorticotropic hormone (ACTH)	
	Thyroid stimulating hormone (TSH)	
	Prolactin	
Adenohypofysis		It is responsible for preventing the production of urine by the kidneys.
		It participates in the development of contractions during labor and in the expulsion of milk from the interior of the mammary glands.

Thyroid	T <sub>3</sub> y T <sub>4</sub>	
	Calcitonin	
Parathyroid		Its function is to increase calcium levels in the body through the process of bone resorption and increases vitamin D synthesis.
		It is responsible for reducing blood glucose levels.
Suprarenal		Its function is to increase sodium reabsorption at the level of the collecting tubule and this in turn increases water reabsorption into the blood.
	Glucocorticoids	
	Melatonin	
Pancreas		

**II- Match each of the following concepts with its corresponding statement.**

1- Testicles	( ) Ducts that allow the exit of the eggs from the ovary to the uterus.
2- Fallopian tubes	( ) It is known as the neck of the uterus and is located below the uterus and above the vagina.
3- Uterus	( ) At this stage of the menstrual cycle, the maturation of the follicles and the ovum occurs.
4- Seminal vesicle	( ) In these organs the production of the testosterone hormone and the production of spermatozoa take place.
5- Cervix	
6- Barrier methods	

7- Chemical methods	( ) Organs where the eggs are stored and estrogen production takes place.
8- Menstrual cycle	( ) A set of events that prepare the female reproductive system for pregnancy.
9- Rythm	( ) Contraceptive method based on the woman's regular menstrual cycles.
10-DIU	( ) Materials that are introduced into the uterus to prevent conception and have a life of up to 10 years.
11- Follicular stage	( ) Stage in which the mature follicle bursts, releasing the ovum into the fallopian tubes.
12- Ovaries	( ) These are the main cells that generally make up the nervous system.
13- Vagina	( ) Methods that prevent sperm from entering the vagina or uterus. The most representative examples are the condom and the diaphragm.
14- Menstruation	( ) These are substances administered to prevent conception, most of which are analogues of the hormones estrogens and progestogens.
15- Luteal phase	( ) Organ of the female reproductive system where the process of gestation takes place.
16- Ovulatory phase	( ) Stage in which the ruptured follicle transforms into the corpus luteum or yellow.
17- Surgical methods	( ) It is known as the master or pituitary gland and produces various hormones such as oxytocin, prolactin and antidiuretic hormone.
18- Syphilis, aids, gonorrhea, genital herpes, chlamydia	( ) Its function is to produce the seminal fluid that will serve as a means of transporting and protecting the spermatozoa.
19- Hypophysis	( ) Vasectomy in men and ligation of the fallopian tubes.
20- Neurons	( ) First stage of the menstrual cycle where endometrial tearing occurs and consequently bleeding appears.
	( ) The structure of the female reproductive system through which sexual intercourse, menstrual flow and delivery occur.

## Portfolio Rubric

Evaluation criteria	Level Very Good <b>60 POINTS</b>	Level Good <b>50 POINTS</b>	Level Sufficient <b>30 POINTS</b>	Level Insufficient <b>20 POINTS</b>
The portfolio was resolved with blue ink, legible handwriting and cleanliness.	The portfolio was resolved in its entirety with blue ink, legible handwriting and cleanliness.	The portfolio was almost completely resolved with blue ink, legible handwriting and cleanliness.	Half of the portfolio was resolved in blue ink, legible handwriting and cleanliness.	The portfolio was not resolved with blue ink, the handwriting is not legible and cleanliness is not visible.
The sections that compose the portfolio were delivered in order by stage and the student included his or her full name on each page.	All sections that compose the portfolio were submitted in order by stage and the student included his or her full name on each sheet.	Almost all of the sections that conform the portfolio were submitted in order by stage and the student included his or her full name on each sheet.	Half of the sections that conform the portfolio were submitted in order by stage and the student included his or her full name on each sheet.	The portfolio was not submitted in a staged order and none of the sheets included the student's full name.
Responded to each of the portfolio activities by hand.	Hand-answered all portfolio activities as requested.	Hand-answered most of the portfolio activities as requested.	Hand-answered half of the portfolio activities as requested.	Hand-answered less than half of the portfolio activities.
It included a cover page with the requested data and was delivered on time.	It has a cover page that includes all the requested data and was delivered on time.	It has a cover page that includes most of the requested data and was delivered on time.	It has a cover page that includes half of the requested data and was delivered on time or late.	It does not have a cover page and the portfolio was delivered late.