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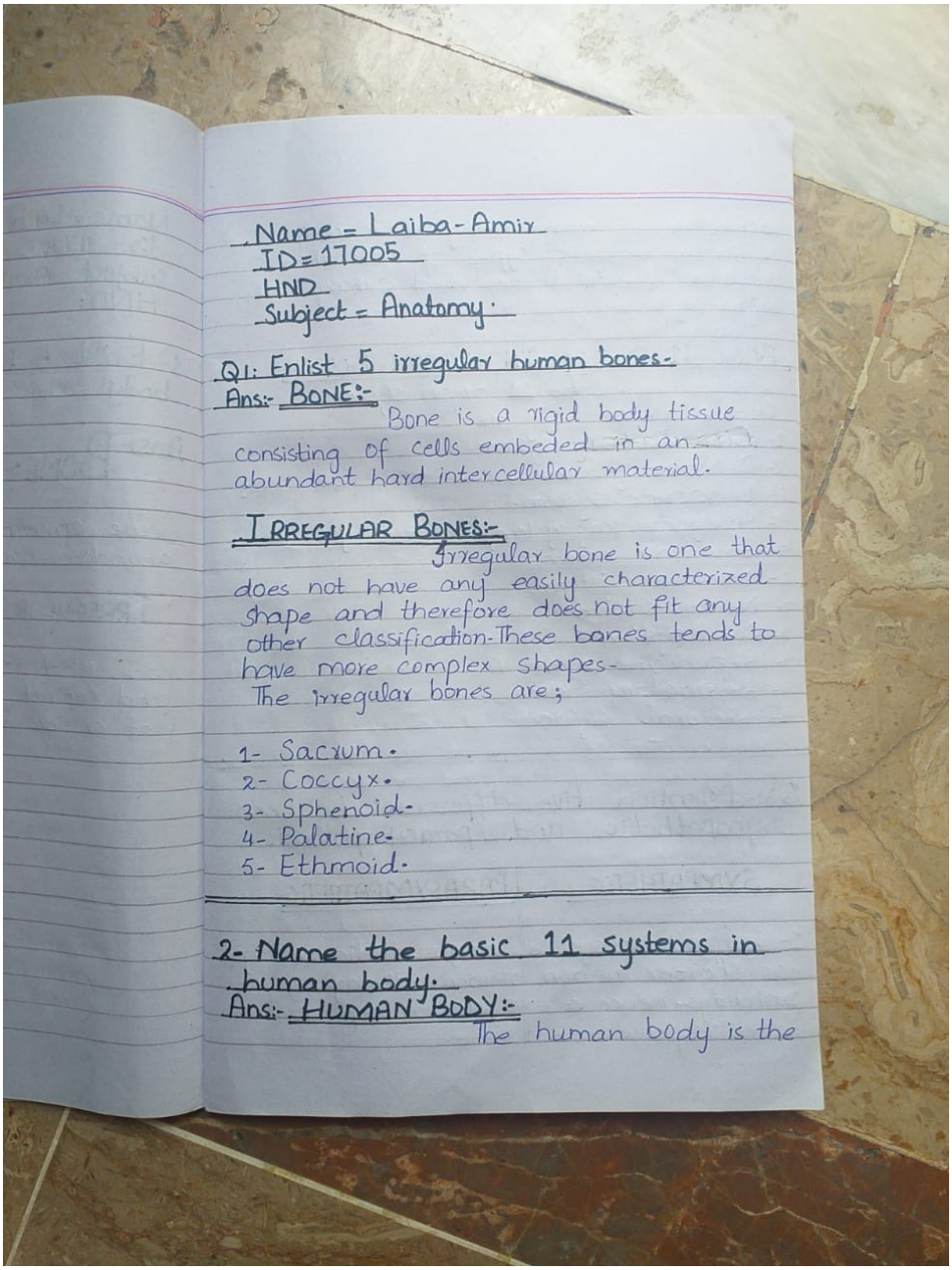

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Subject = Anatomy.

Q1: Enlist 5 irregular human bones.
Ans:- BONE:-
Bone is a rigid body tissue consisting of cells embeded in an abundant hard intercellular material.

IRREGULAR BONES:-
Irregular bone is one that does not have any easily characterized shape and therefore does not fit any other classification. These bones tends to have more complex shapes.
The irregular bones are;

1- Sacrum.
2- Coccyx.
3- Sphenoid.
4- Palatine.
5- Ethmoid.

2- Name the basic 11 systems in human body.
Ans:- HUMAN BODY:-
The human body is the

Structure of human being. It is composed of many different types of cells that together create tissues and subsequently organ system.

BASIC 11 SYSTEMS IN HUMAN BODY:-

The 11 organ systems of the human body are

1- Circulatory system.
2- Digestive system.
3- Endocrine system.
4- Integumentary system / Exocrine System.
5- Immune system
6- Muscular system.
7- Nervous system.
8- Renal system.
9- Reproductive system.
10- Respiratory system
11- Skeletal system.

Q3:- Mention five differences between Sympathetic and parasympathetic.

SYMPATHETIC	PARASYMPATHETIC.
1- Sympathetic system has shorter neuron pathways, hence a faster response time.	Parasympathetic has longer neuron pathways, hence a slower response time.
2- It involved in the fight or flight response.	It involved in the maintaining of homeostasis and also permits the rest and digest response.
3- The sympathetic system prepares the body for any potential danger.	The parasympathetic system aims to bring the body to a state of calm.
4- In sympathetic system saliva secretion is inhibited.	In parasympathetic saliva secretion increases, digestion increases.
5- The pupil dilates to let in more light.	The pupil contracts.

Q4:- Enumerate the 12 cranial nerves.

Ans:-

CRANIAL NERVE:-

Cranial nerves are pairs of nerves that connect the brain to different parts of head, neck and trunk.

12 CRANIAL NERVES:-

The 12 cranial nerves are;

1- Olfactory nerve.
2- Optic nerve.
3- Oculomotor nerve.
4- Trochlear nerve
5- Trigeminal nerve.

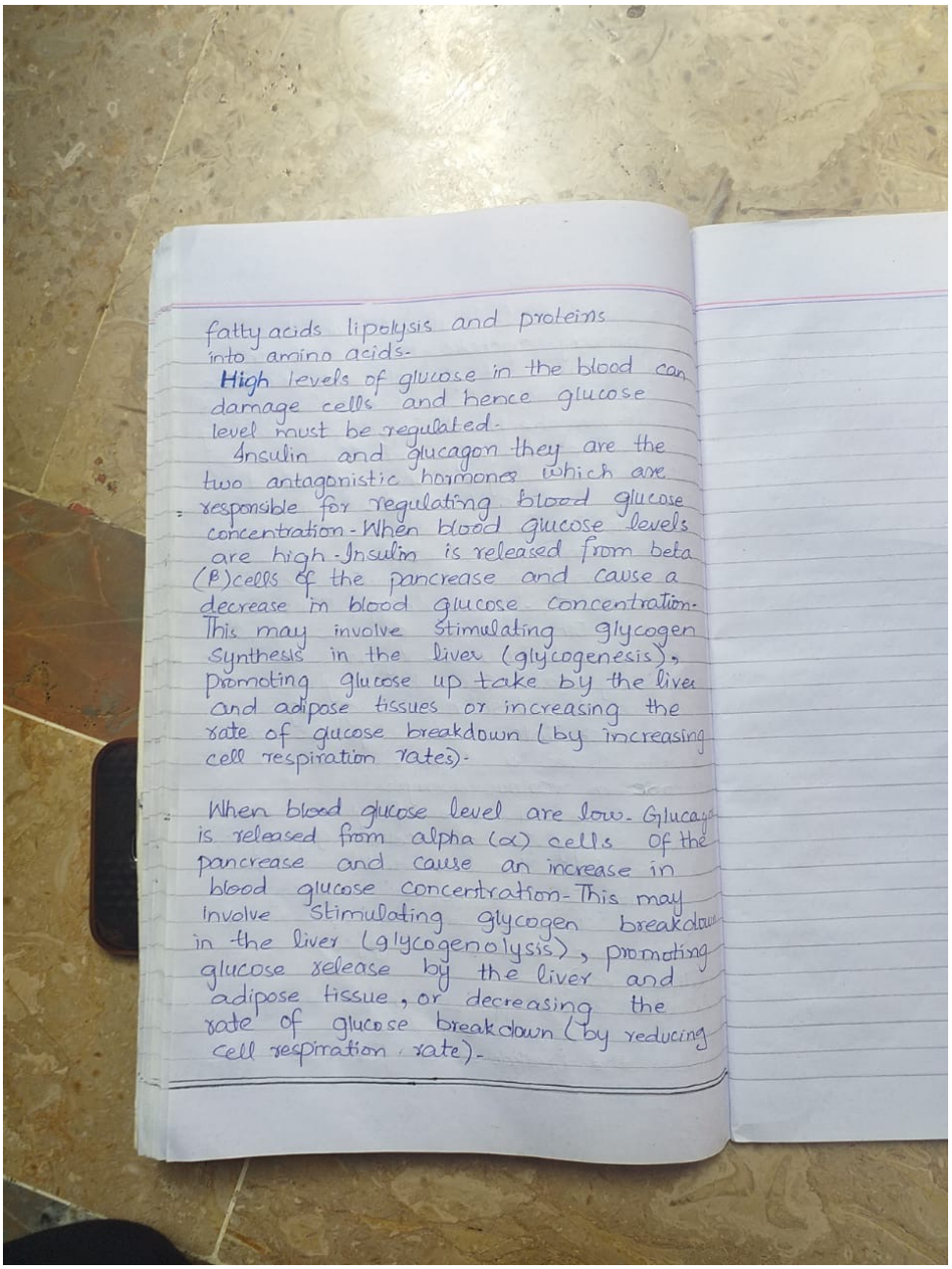
6- Abducens nerve.
7- Facial nerve.
8- Vestibulocochlear nerve.
9- Glossopharyngeal nerve.
10- Vagus nerve.
11- Accessory nerve.
12- Hypoglossal nerve.

Qs: How insulin and glucagon controls blood glucose level.

Ans: INSULIN AND GLUCAGON WORK TOGETHER TO KEEP BLOOD GLUCOSE LEVEL STABLE:-

Insulin plays a critical role in the regulation of body fat. Together with its counterpart the hormone glucagon it regulates blood glucose also known as blood sugar which is the concentration of glucose in the blood. Insulin is secreted by the pancreas in response to specific triggers, especially blood glucose level, but just the thought of eating can also cause the release of insulin. Glucagon is the polar opposite of insulin. It is a hormone that is secreted when blood glucose is low. Glucagon stimulates the liver to release glucose by breaking down glucagon. These two hormones are maintaining homeostasis, basically keeping blood glucose at a stable level. Insulin is considered the primary anabolic hormone of the body because it promotes the creation of complex molecules in cells from small molecules in the blood. Glucagon conversely promotes the breaking down of larger molecules into sugar. When the blood glucose level is too high, the pancreas secretes insulin. When the level is too low, the pancreas secretes glucagon. It is normal for blood glucose levels to fluctuate, particularly following a meal. Other causes can be stress, infection and trauma. Vigorous exercise or fasting can cause blood glucose level to drop. Insulin and glucagon levels back into the acceptable range. Insulin drives a decrease in blood glucose in various ways:

- It promotes the use of glucose to create energy for the cells (glycolysis).
- It stimulates the liver and muscles to absorb and store it as glycogen.
- It also stimulates fat cells to absorb glucose and store it as triglycerides (lipogenesis).
- Insulin also suppress other energy sources to prioritize glucose use, it inhibits the breakdown of fat tissue into



fatty acids lipolysis and proteins into amino acids.

High levels of glucose in the blood can damage cells and hence glucose level must be regulated.

Insulin and glucagon they are the two antagonistic hormones which are responsible for regulating blood glucose concentration. When blood glucose levels are high. Insulin is released from beta (β) cells of the pancrease and cause a decrease in blood glucose concentration. This may involve stimulating glycogen synthesis in the liver (glycogenesis), promoting glucose up take by the liver and adipose tissues or increasing the rate of gucose breakdown (by increasing cell respiration rates).

When blood glucose level are low. Glucagon is released from alpha (α) cells of the pancrease and cause an increase in blood glucose concentration. This may involve stimulating glycogen breakdown in the liver (glycogenolysis), promoting glucose release by the liver and adipose tissue, or decreasing the rate of glucose breakdown (by reducing cell respiration rate).