

# **IQRA NATIONAL UNIVERSITY**

**STUDENT NAME:** Kousar Irshad

**ROLL NO.** 15799

**Subject:** Anatomy

**Question no. 01:**

**Enlist 5 irregular bones in human body.**

List of five irregular bones:

1. Vertebrae
2. Mandible
3. Ethmoid
4. Sphenoid
5. Hyoid

**Question no. 02:**

**Name the basic 11 systems in human body.**

Basic systems in human body:

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. skeletal system
11. Respiratory system

**Question no. 03:**

**Mention five differences between sympathetic nervous system and parasympathetic nervous system**

Below are the five differences between sympathetic nervous system and parasympathetic nervous system.

**Sympathetic system:**

1. Sympathetic nervous system is a part of the autonomic nervous system that serves to accelerate the heart rate, constrict blood vessels and raise blood pressure.
2. Originate from cranial thoracic, and lumber regions of the central nervous system.
3. Prepares the body for an intense physiological activity.
4. Action is a quick response.
5. Ganglions are found close to the central nervous system.

**Parasympathetic system:**

1. Parasympathetic nervous system is a part of the autonomic nervous that serves to slow the heart rate, increase intestinal and glandular activity, and relax the sphincter muscles
2. Originates from cranial and sacral regions of the central nervous system.
3. relaxes the body by inhibiting high energy functions.
4. Action is a slow response.
5. Ganglions are found away from the central nervous system but close to the effector.

**Question no. 04:**

**Enumerate the 12 cranial nerves.**

**Cranial nerves:**

Cranial nerves are pairs of nerves that connects brain to different part of the body to head, neck and trunk. there are 12 of them, each named for their function or structure.

Below are the 12 cranial nerves:

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

**Question no. 5:**

**How Insulin and Glucagon controls blood glucose levels.**

Insulin:

Insulin is a hormone which plays a number of roles in the body's metabolism.

Insulin regulates how the body uses and stores glucose and fat. Many of the body's cells rely on insulin to take glucose from the blood for energy.

Insulin And Blood Glucose Levels:

Insulin helps control blood glucose levels by signaling the liver and muscle and fat cells to take in glucose from the blood. Insulin therefore helps cells to take in glucose to be used for energy.

If the body has sufficient energy, insulin signals the liver to take up glucose and store it as glycogen. The liver can store up to around 5% of its mass as glycogen. Some cells in the body can take glucose from the blood without insulin, but most cells do require insulin to be present.

Glucagon:

A hormone that tells cells in your liver and muscles to convert glycogen into glucose and release it into your blood so your cells can use it for energy.

Glucagon and Blood Glucose level:

Glucagon works to counterbalance the actions of insulin.

About four to six hours after you eat, the glucose levels in your blood decrease, triggering your pancreas to produce glucagon. This hormone signals your liver and muscle cells to change the stored glycogen back into glucose. These cells then release the glucose into your bloodstream so your other cells can use it for energy.

This whole feedback loop with insulin and glucagon is constantly in motion. It keeps your blood sugar levels from dipping too low, ensuring that your body has a steady supply of energy.