**HND 2nd Semester**

**Course Title: Anatomy Instructor: Ahmed Hayat**

**Student Name: ID:**

**Final Term Assignment Marks: 50**

***NOTE: Mention your name and roll number on the assignments.***

1. Enlist 5 irregular bones in human body.
2. Name the basic 11 systems in human body.
3. Mention five differences between sympathetic & parasympathetic nervous system
4. Enumerate the 12 cranial nerves.
5. How insulin and glucagon controls blood glucose levels.

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**QUESTION: 1**

Enlist 5 irregular bones in human body.

**ANSWER:**

*The spine is the place in the human body where the most irregular bones can be found. There are all 33 irregular bones. The irregular bones are;*

1. *Vertebrae.*
2. *Sacrum.*
3. *Coccyx.*
4. *Temporal.*
5. *Sphenoid.*

**QUESTION: 2**

Name the basic 11 systems in human body.

**ANSWER:**

*The 11 organ systems of the are the;*

1. *Integumentary.*
2. *Muscular.*
3. *Skeletal.*
4. *Nervous.*
5. *Circulatory.*
6. *Lymphatic.*
7. *Respiratory.*
8. *Endocrine.*
9. *Urinary/excretory.*
10. *Reproductive.*
11. *Digestive.*

**QUESTION: 3**

Mention five differences between sympathetic & parasympathetic nervous system.

**ANSWER:**

|  |  |
| --- | --- |
| ***Sympathetic:*** | ***Parasympathetic:*** |
| 1. *The sympathetic nervous system can accelerate heart rate.* | 1. *Body function stimulated by the parasympathetic nervous system.* |
| 1. *Widen bronchial passage.* | *2. (PSNS) include sexual arousal, salivation, lacrimation, urination, digestion, and defecation.* |
| 1. *Decrease motility of the large intestine.* | *3. The PSNS primarily uses acetylcholine as its neurotransmitter.* |
| 1. *Constrict blood vessels.* | *4. Parasympathetic system conserves energy as it slows the heart rate.* |
| 1. *Increase peristalsis in the esophagus.* | *5. Increase intestinal and gland activity and relax sphincter muscles in the gastrointestinal tract.* |

**QUESTION: 4**

Enumerate the 12 cranial nerves.

**ANSWER:**

*The cranial nerves are a set of 12 paired nerves that arise directly from the brain. The first two nerves (olfactory and optic) arise from the cerebrum, whereas the remaining ten emerge from the brain stem.*

*Cranial nerves are list below:*

1. *Olfactory nerve.*
2. *Optical nerve.*
3. *Oculomotor nerve.*
4. *Trochlear nerve.*
5. *Trigeminal nerve.*
6. *Abducens nerve.*
7. *Facial nerve.*
8. *Vestibulocochlear nerve.*
9. *Glossopharengeal nerve.*
10. *Vagus nerve.*
11. *Accessory nerve.*
12. *Hypoglossal nerve.*

**QUESTION: 5**

How insulin and glucagon controls blood glucose levels.

**ANSWER:**

* *The pancreas secrets insulin and glucagon. Both hormones work in balance to play vital role in regulating blood sugar levels. If the level of one hormone is higher or lower than the ideal range, blood sugar levels may spike or drop.*
* *Insulin and glucagon help maintain a state called homeostasis in which conditions inside the body remain steady.*
* *When blood sugar is too high, the pancreas secrets more insulin.*
* *When blood sugar levels drop, the pancreas release glucagon to raise them.*
* ***SUMMARY:*** *Insulin helps the cells absorb glucose, reducing blood sugar and providing cells with glucose for energy. When blood sugar levels are too low, the pancreas release glucagon. Glucagon instruct the liver to release stored glucose, which causes blood sugar to rise.*

**THE END:**