

Paper-19 BPEA 205

ANATOMY &PHYSIOLOGY

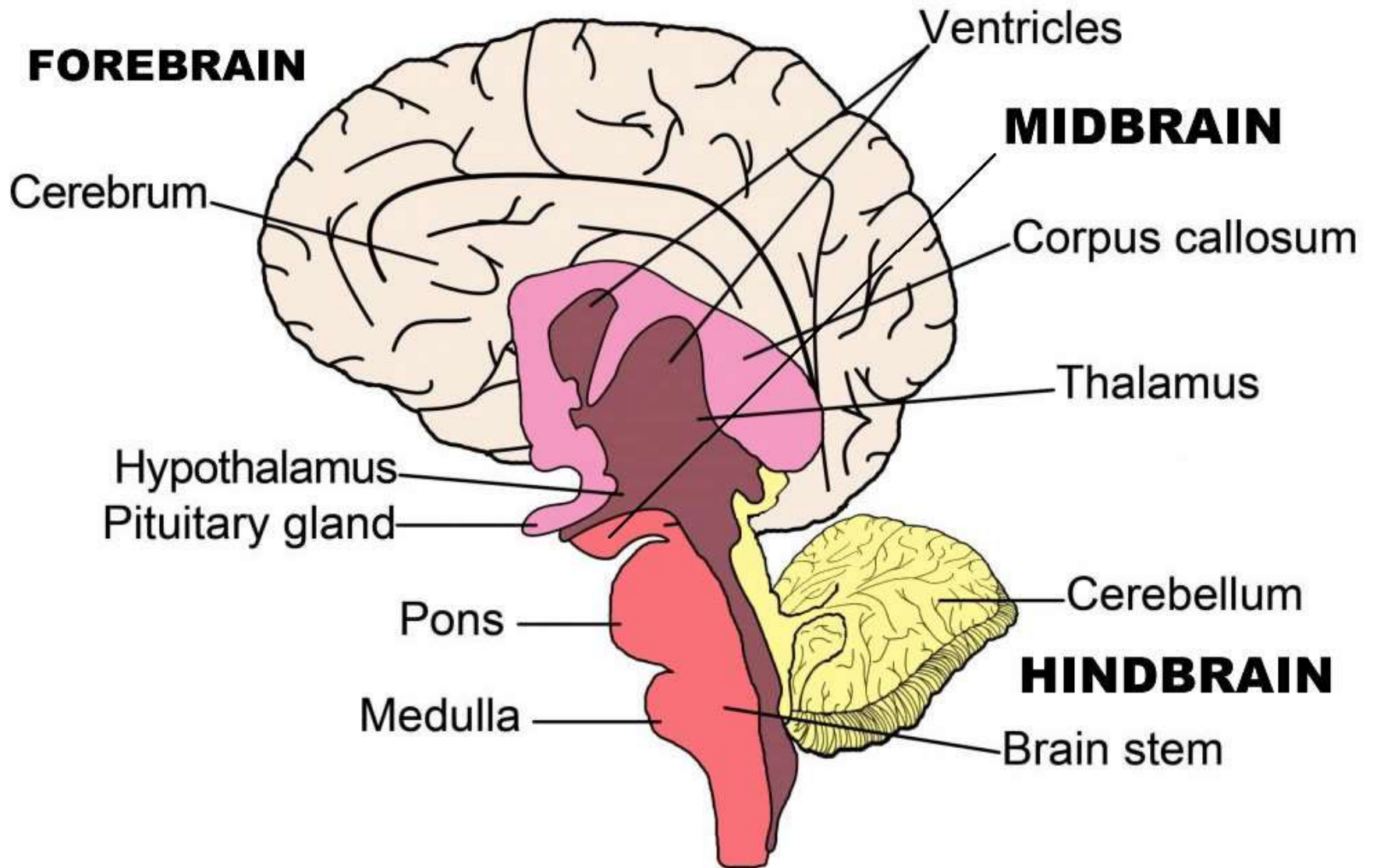
UNIT IV. Nervous system

UNIT V. Digestive system

Assignment

- 1. draw a diagram of brain and its part.
- 2. functions of hormones.
- 3. draw a diagram of alimentary canal and its part.
- 4. functions of liver, pancreas and gallbladder.

BRAIN structure



Parts of Brain

- Cerebrum
- Cerebellum
- Midbrain
- Pons
- Medulla oblongata

Function of Brain

- Controls voluntary movements of the muscle
The highest centre for involuntary movements of muscles and ANS.
- general sensation like pain, touch and temperature
- Sense of smell
- Understanding speech written and spoken

Function of Brain

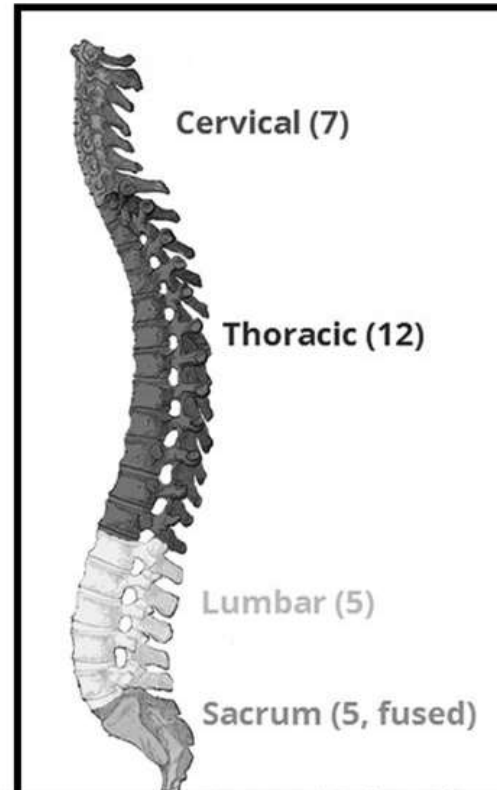
- Sense of taste
- Sensation of light
- Coordination of movement, posture, and balance.
- Control breathing and heart rate

SPINAL CORD

- The spinal cord is a long, tubular bundle of neurons which carry information between the brain and the rest of the body. Human brain is covered by a bony box inside which the brain is contained in a fluid-filled balloon which provides shock absorption.
- Spinal cord is enclosed in the vertebral column.

Function of Spinal cord

- Protection – encloses and protects the spinal cord within the spinal canal.
- Support – carries the weight of the body above the pelvis.
- Axis – forms the central axis of the body.
- Movement – has roles in both posture and movement.



Spinal cord

HORMONES

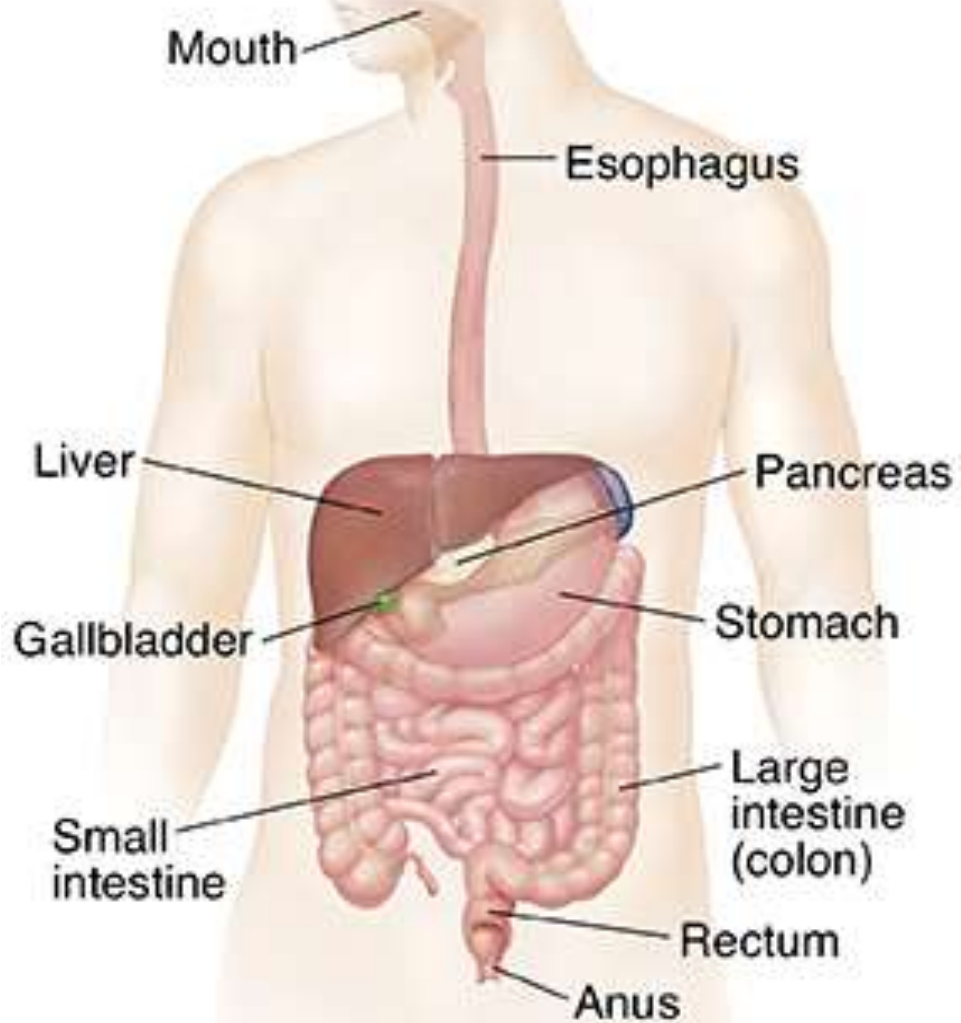
- A hormone is a chemical that is made by specialist cells, usually within an endocrine gland, and it is released into the bloodstream to send a message to another part of the body.
- Growth hormone, which stimulates the growth of bone and other body tissues and plays a role in the body's handling of nutrients and minerals
- Antidiuretic hormone, which helps control body water balance through its effect on the kidneys.

FUNCTIONS

- Glucagon Raises blood sugar levels
- Insulin Lowers blood sugar levels; stimulates metabolism of glucose, protein, and fat
- Melatonin Helps with sleep.

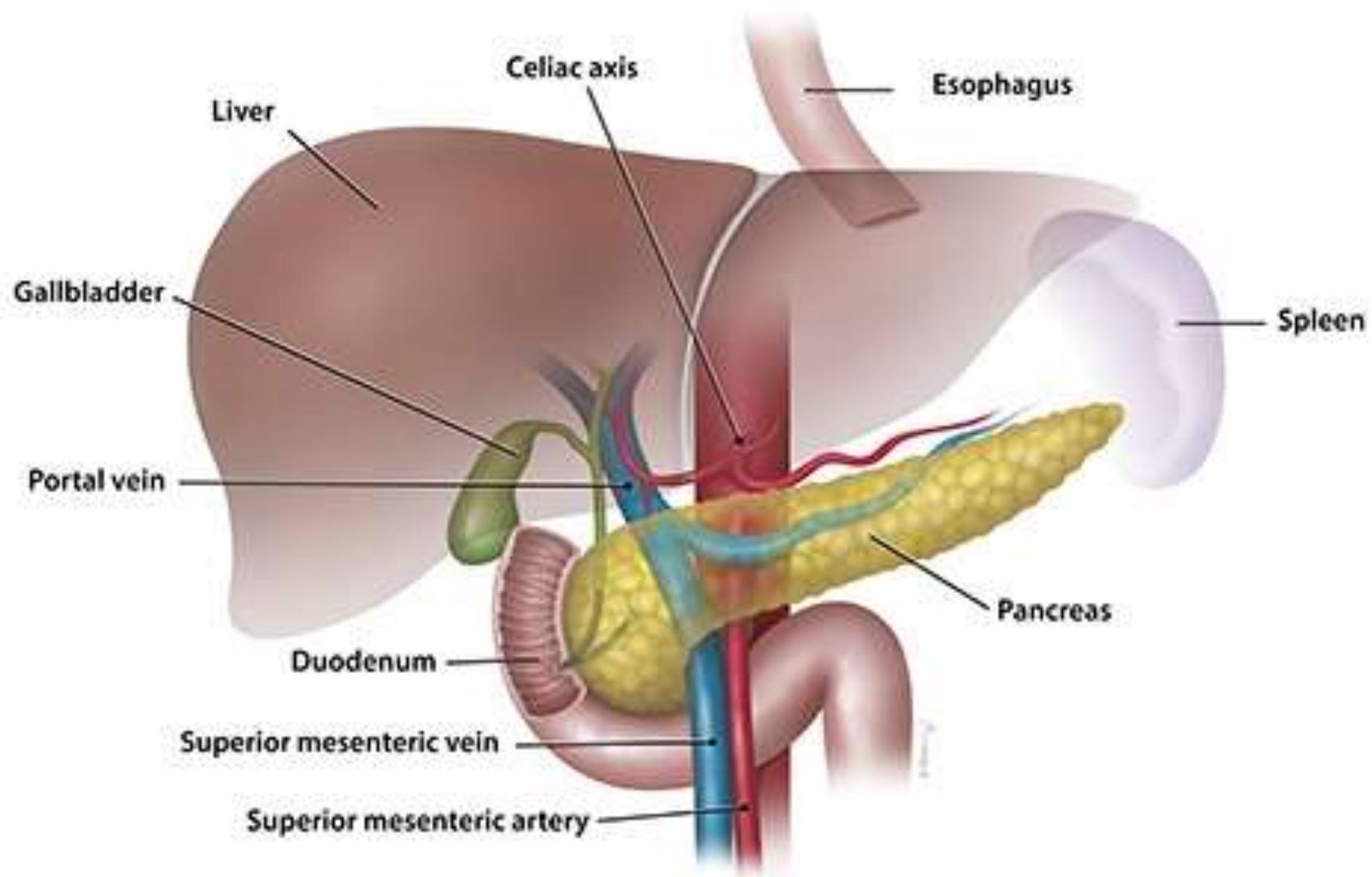
DIGESTIVE SYSTEM

- The digestive system is the group of organs that break down food in order to absorb its nutrients. The nutrients in food are used by the body as fuel to keep all the body systems working.
- Parts- Mouth, Esophagus, Stomach, small intestine , large intestine, rectum and anus.



Functions of digestive system

- Ingestion
- Movement
- Digestion
- Absorption
- Excretion.



LIVER

- The liver is a reddish-brown, organ with four lobes . A human liver normally weighs approximately 1.5 kg.
- It is both the heaviest internal organ and the largest gland in the human body. Located in the right upper of the abdominal cavity it rests just below the diaphragm, to the right of the stomach and overlies the gallbladder.
- The liver is connected to two large blood vessels: the hepatic artery and the portal vein and common hepatic duct.

Functions of liver

- Secretion of bile,
- Makes certain proteins for blood plasma
- Makes cholesterol and special proteins to help carry fats through the body
- Stores and releases glucose as needed
- stores iron
- Changes harmful ammonia to urea
- Clears the blood of medicines and other harmful substances
- Regulates blood clotting
- Fights infections by making immune factors and removing bacteria from the bloodstream.

PANCREAS

- The pancreas is an organ located in the abdomen. It plays an essential role in converting the food we eat into fuel for the body's cells. The pancreas has two main functions: an exocrine function that helps in digestion and an endocrine function that regulates blood sugar.

GALLBLADDER

- The gallbladder is a pear-shaped, hollow structure located under the liver and on the right side of the abdomen. Its primary function is to store and concentrate bile, a yellow-brown digestive enzyme produced by the liver. ... It also drains waste products from the liver into the duodenum, a part of the small intestine.