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CHAPTER:7STRUCTURAL ORGANIZATION IN ANIMALS

Frog (Ranatigrina)

Frogs are cold-blooded organism having ability to change colours to hide from enemies. Body is divisible into head and trunk, bulged eyes covered by nictitating membrane. Male frog is different from female having vocal sacsandcopul a tory padon first digit offore limb.

Digestive System of Frog

- an alimentary canal (digestive tract) and
- associated digestive glands.
- Due to their carnivorous diet, frogs have a relatively short alimentary canal, compared to herbivores.

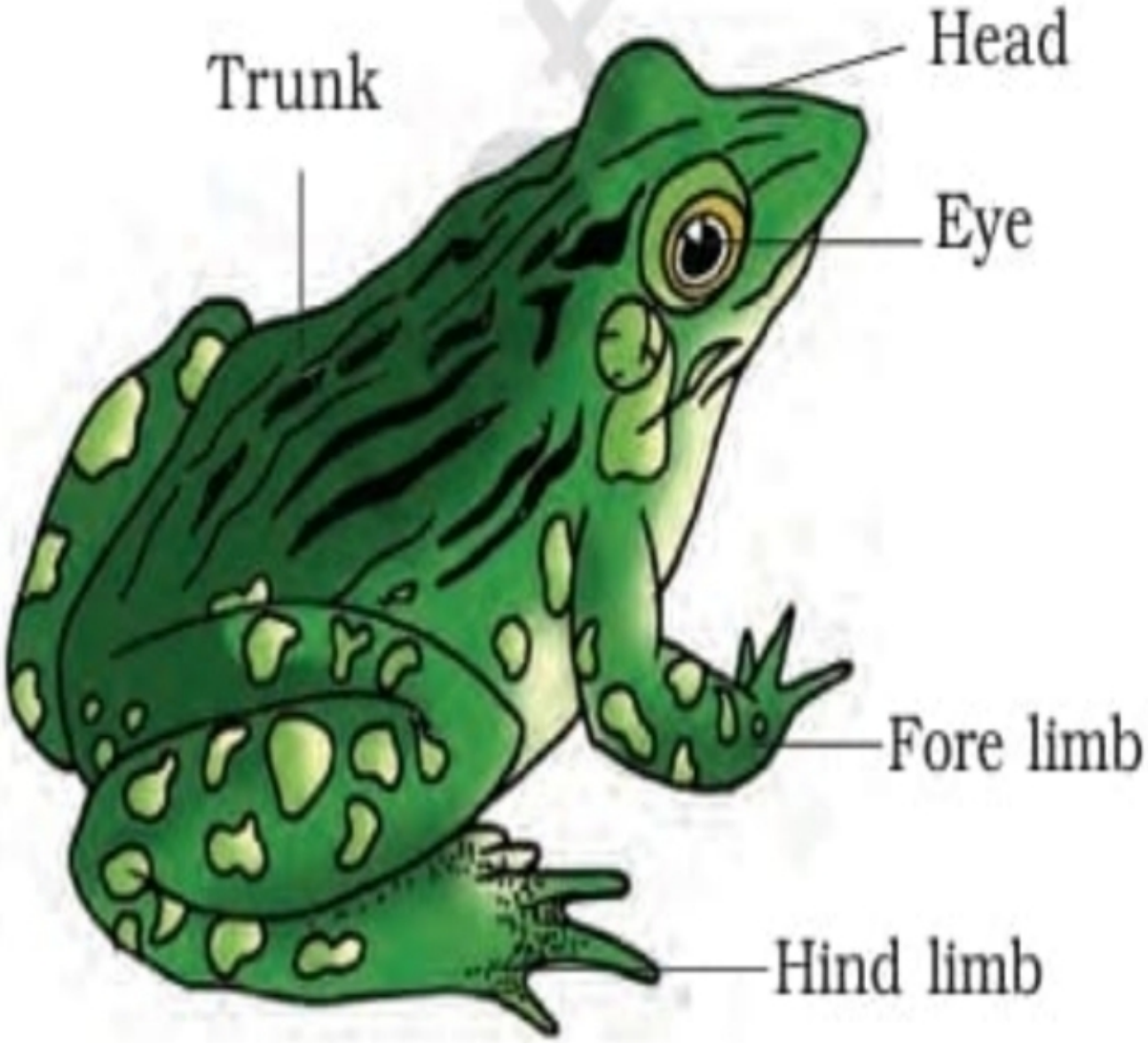


Figure 7.1 External features of frog

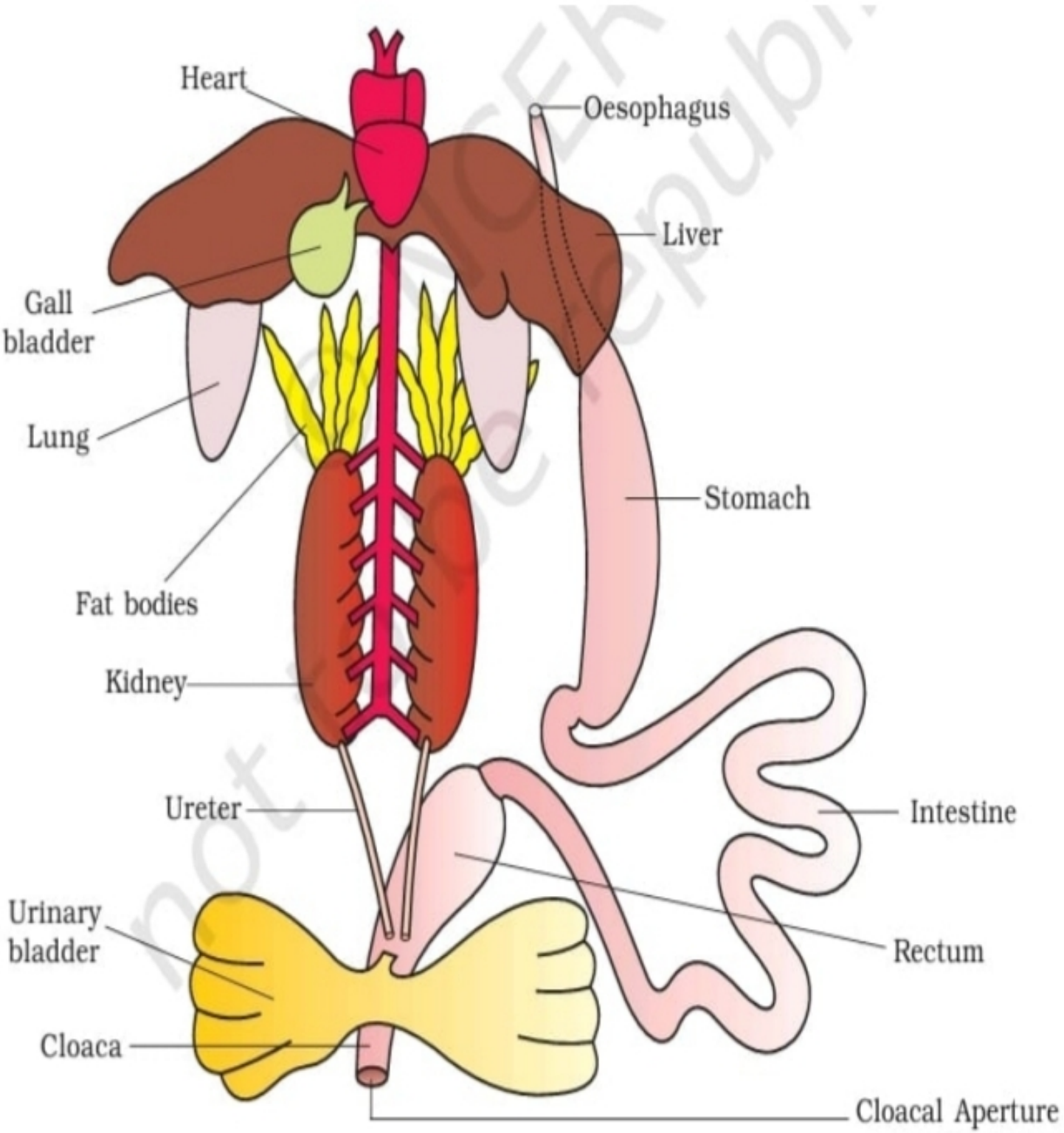


Figure 7.2 Diagrammatic representation of internal organs of frog showing complete digestive system

1. Alimentary Canal:

Mouth :The digestive process begins in the mouth, where food is taken in. Frogs have a sticky tongue to capture prey.

Buccal Cavity: The food then moves into the buccal cavity, a space between the gums and inside of the cheeks.

Pharynx: The pharynx is a region at the back of the mouth, connecting to the esophagus.

Oesophagus:A short, narrow tube that transports the food to the stomach.

Stomach: The stomach is a sac-like organ where food is further broken down, with two distinct regions : **the cardiac and pyloric stomach.**

Small Intestine: The small intestine is divided into the **duodenum** (where most digestion occurs) and the **ileum** (where nutrients are absorbed).

Large Intestine: The large intestine leads to the cloaca.

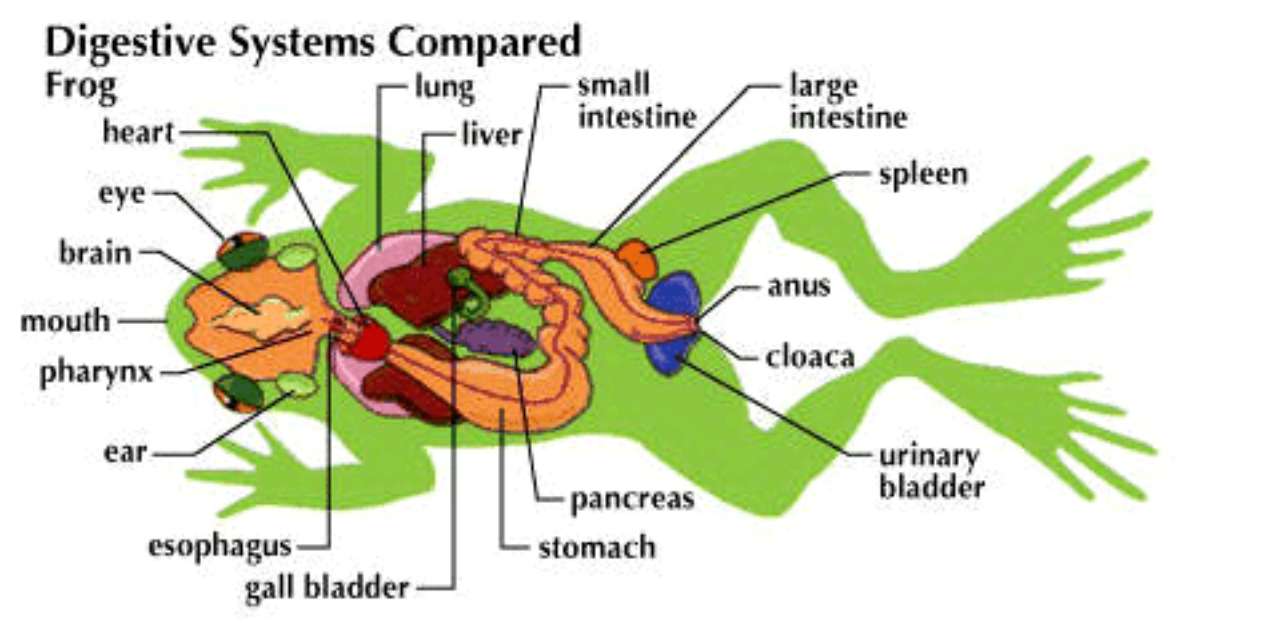
Cloaca:A common chamber where waste products (solid and liquid) and reproductive products exit the body.

2. Digestive Glands:

Liver: Produces bile, which aids in fat digestion.

Pancreas: Produces pancreatic juice, which contains **digestive enzymes.**

Gallbladder: Stores bile produced by the liver



Reproductive system

The frog's reproductive system is sexually **dimorphic**, meaning there are distinct male and female systems.

The male frog's system includes testes, vasa efferentia, and a cloaca, while the female's system has ovaries, oviducts, and a cloaca.

Fertilization in most frog species is external, occurring in water after the male and female release their gametes.

Urinogenital system

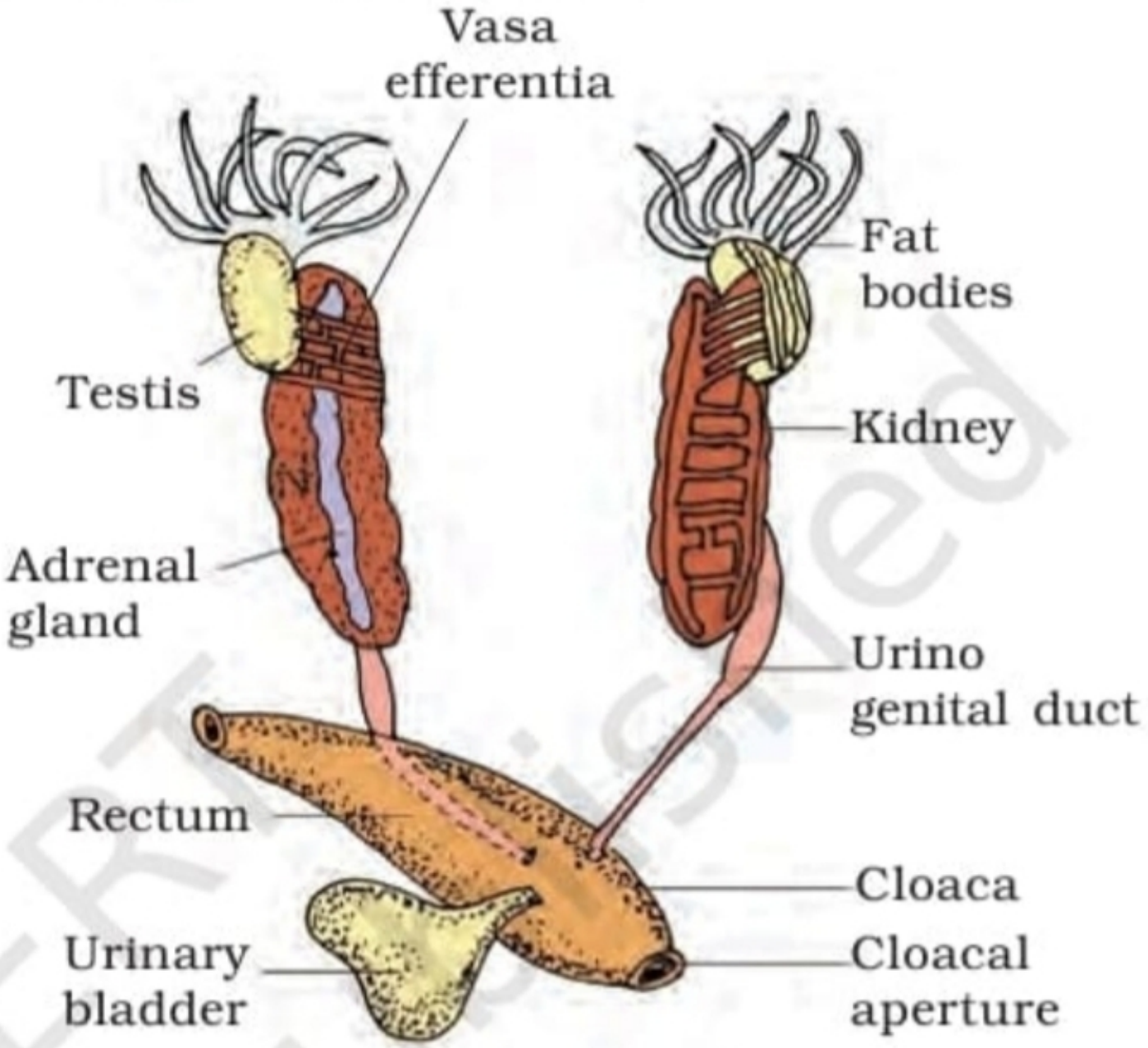


Figure 7.3 Male reproductive system