

# Experiment 7

**I. Aim:** To study specimens belonging to the different groups of animals (Chordates).

## II. Materials Required:

1. Preserved Specimens provided in lab.

## III. Procedure:

1. Observe the specimens closely and note down the observed characteristics in your practical notebook.
2. Draw a neatly labeled diagram on the white page of your practical notebook.
3. **WRITE ABOUT ONE SPECIMEN IN ONE PAGE ONLY. EACH WHITE PAGE SHOULD CONTAIN ONE CENTRALLY DRAWN LABELLED DIAGRAM OF THE OBSERVED SPECIMEN AND THE ADJACENT RULED PAGE SHOULD CONTAIN THE OBSERVED CHARACTERISTICS WRITTEN NEATLY.**

## IV. Observation:

### A. Class Pisces:

- i. They are adapted to aquatic life
- ii. Their skin is covered with scales
- iii. Body is streamlined and have a muscular tail.
- iv. They are cold blooded or poikilothermal animals.
- v. Their heart has two chambers- one auricle and one ventricle.
- vi. They have fins for locomotion.
- vii. They breathe through gills and are oviparous animals.
- viii. Their skeleton is made up of bones or cartilage.

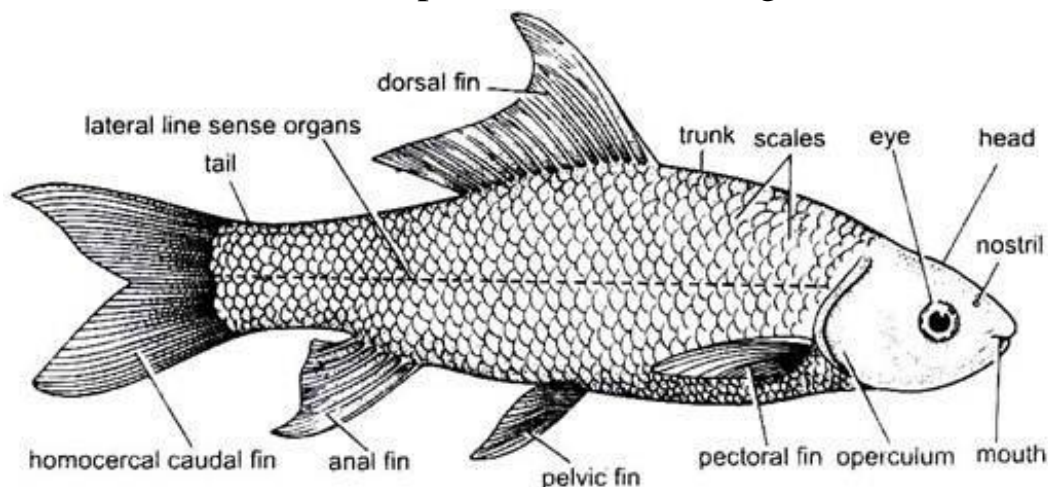


Fig. 15.1. *Labeo rohita*. External features (lateral view).

## B. Class Amphibia:

- i. They are amphibious in habitat.
- ii. In the early stages of life during tadpole phase they breathe through gills but in the adult stage they breathe through lungs.
- iii. Skin of amphibians is smooth, moist and slimy.
- iv. They have pentadactyl limbs for locomotion.
- v. They have a three chamber heart i.e. two auricles and one ventricle.
- vi. They are cold blooded or poikilothermal animal.
- vii. They are oviparous.

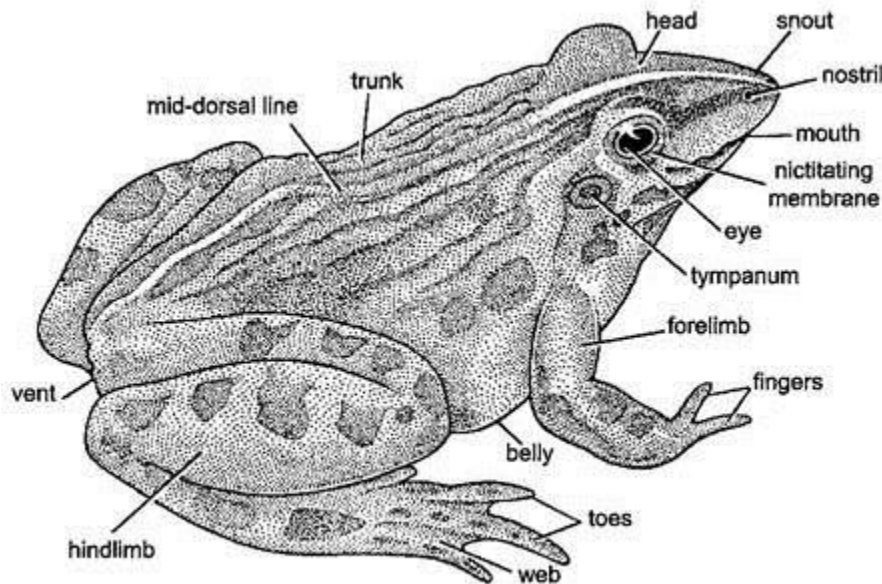
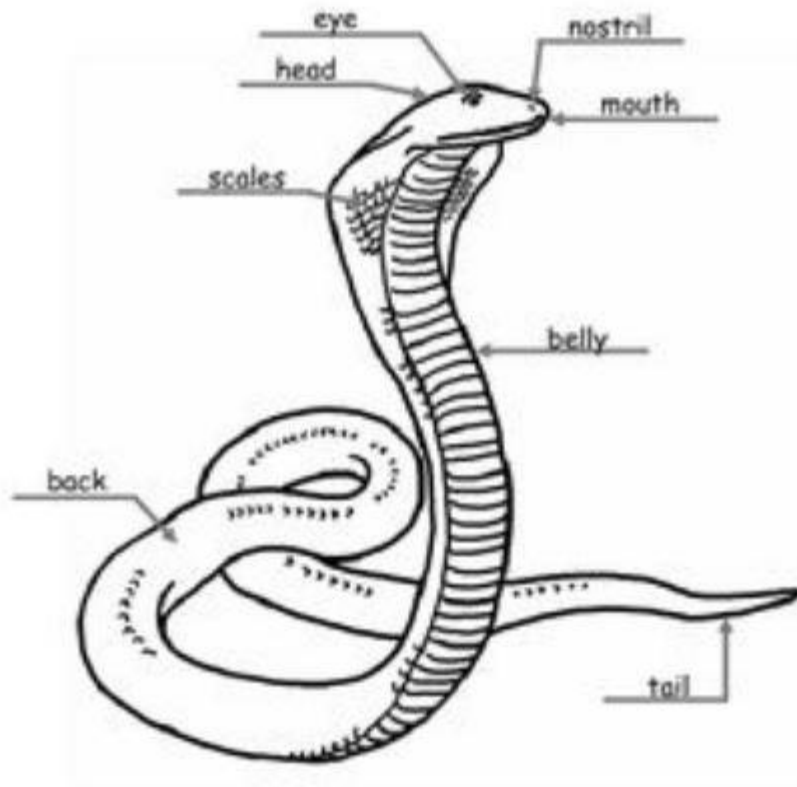


Fig. 18.3. An Indian frog, *Rana tigrina*, in sitting posture.

## C. Class Reptilia:

- i. Reptiles are terrestrial in habitat
- ii. They breathe through lungs from birth.
- iii. They have rough skin with horny scales on it.
- iv. Reptiles have three chambered heart two auricles and a partially divided ventricle.
- v. Reptiles are oviparous i.e. they lay eggs have leathery shell.
- vi. They are poikilothermal animals.
- vii. Most of the reptiles have limbs to locomote except for snakes.



#### **D. Class Aves:**

- i. Most birds are aerial in habitat
- ii. They breathe through lungs.
- iii. Their bodies are streamlined and covered with feathers.
- iv. Their forelimbs are modified into wings
- v. Birds have pneumatic bones i.e. bones are filled with air.
- vi. They are oviparous
- vii. They have four chambered hearts.
- viii. Different birds have different types of beaks according to their feeding habits.
- ix. They are homeothermal i.e. warm blooded.

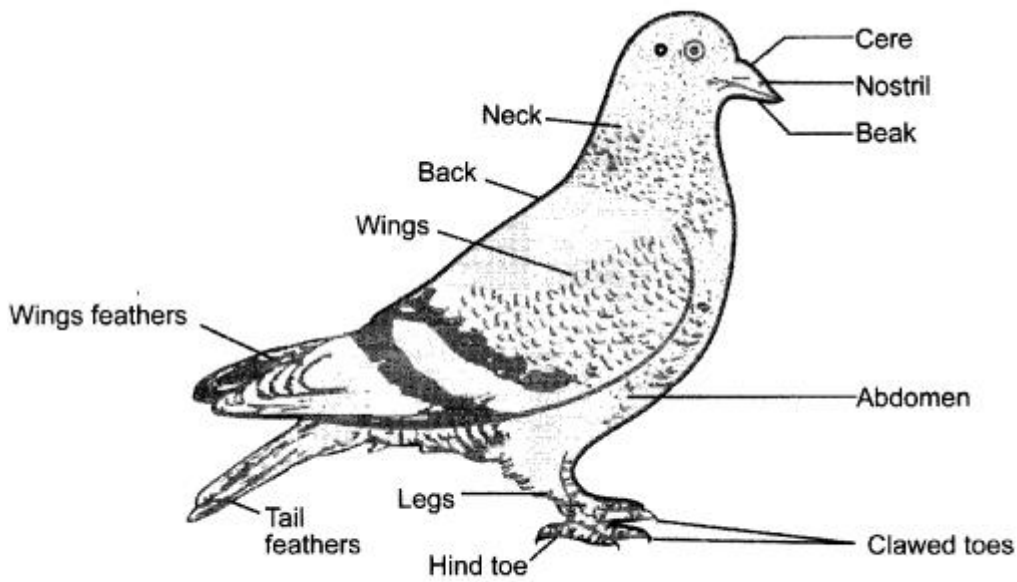


Fig. 7.5. Pigeon - External features

### E. Class Mammalia:

- i. Mammals mostly live on land but some of them live in water like whales and dolphins. Some mammals can fly.
- ii. They have hair on their skin.
- iii. They have a diaphragm separating the thorax and abdomen of the body internally.
- iv. They are viviparous
- v. They have a four chambered heart.
- vi. Mammals breathe through lungs.
- vii. External ears or pinna are present and testes are contained in scrotum.
- viii. Mammals show parental care for young ones.

