

Study of Characters of Animal Specimens And Identification With Reasons

Study of characters of specimen and identification :-

Amoeba, Fasciola Hepatica (Liver Fluke), Round worm (Ascaris Lumbricoides), Hirudinaria (Leech), Pheretima Posthuma (Earthworm), Palaemon (Prawn), Bombyx Mori (Silk worm), Pila Globosa (Apple Snail), Asteria (Star Fish), Scoliodon (Dog fish/ Shark), Hydra, Starfish, Frog, Labeo Rohita (Rohu), Pigeon, Rabbit.

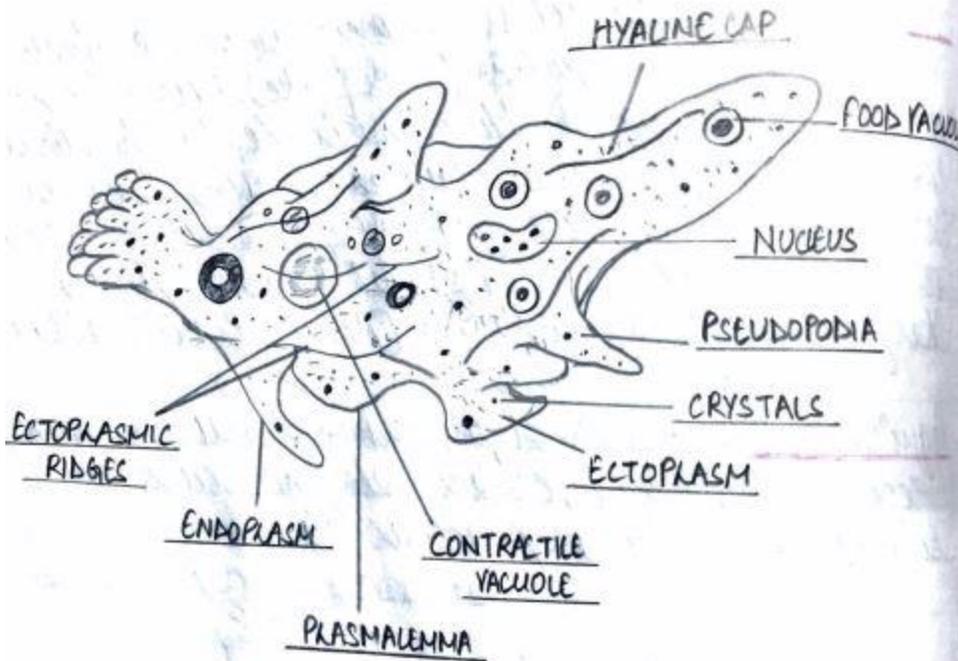
REQUIRED: Fresh or preserved animal specimens, record file, pencil, eraser, sharper, rules, a laboratory guide or practical file.

AMOEBA PROTEUS

Classification:-

- Kingdom – Protista
- Phylum – Protozoa
- Class – Sarcodine
- Order – Amoebida
- Genus – Amoeba
- Species – Proteus

AMOEBA PROTEUS



COMMENTS: Amoeba occurs in ponds, ditches lakes, streams etc, having plenty of decaying organic matter.

It is unicellular, microscope, grayish in colour and is about 0.2 to 0.5 mm in diameter.

Under the microscope, a living Amoeba appears like an irregular jelly like, tiny mass of hyaline protoplasm. The protoplasm can be distinguished into an outer ectoplasm & inner endoplasm.

Diagnostic Features: Unicellular & irregular shape of the shape.

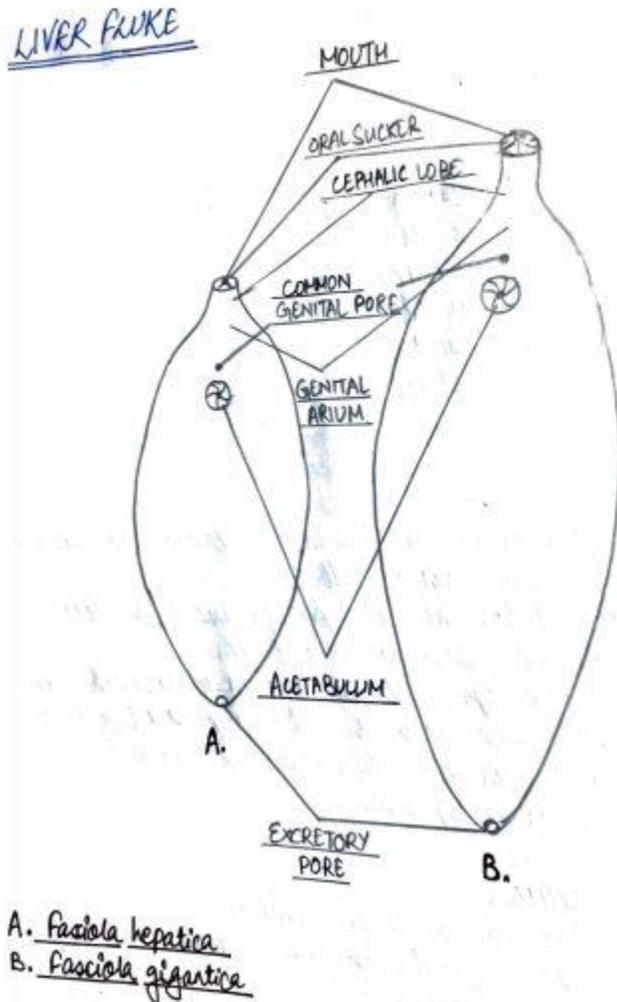
Presence of finger like & blunt pseudopodia.

Presence of contractive vacuole

FASCIOLA HERPATIC (LIVER FLUKE)

Classification:-

- Kingdom – Animalia
- Phylum – Platyhelminthes
- Class – Trematoda
- Order – Echinostoma
- Genus – Fasciola
- Species – Hepatica



COMMENTS: It is an endoparasite found in the bile ducts of sheeps, goats, cattles, sometimes other vertebrates excluding man.

It causes serious liver diseases called liver rot.

It is somewhat triangular, flat, leaf like parasite about 25mm in length. It has an oval and ventral sucker (acetabulum) used to adhere to the bile duct.

The body is covered by cuticle with spinules.

DIAGNOSTIC FEATURES: The body is triangular & leaf like

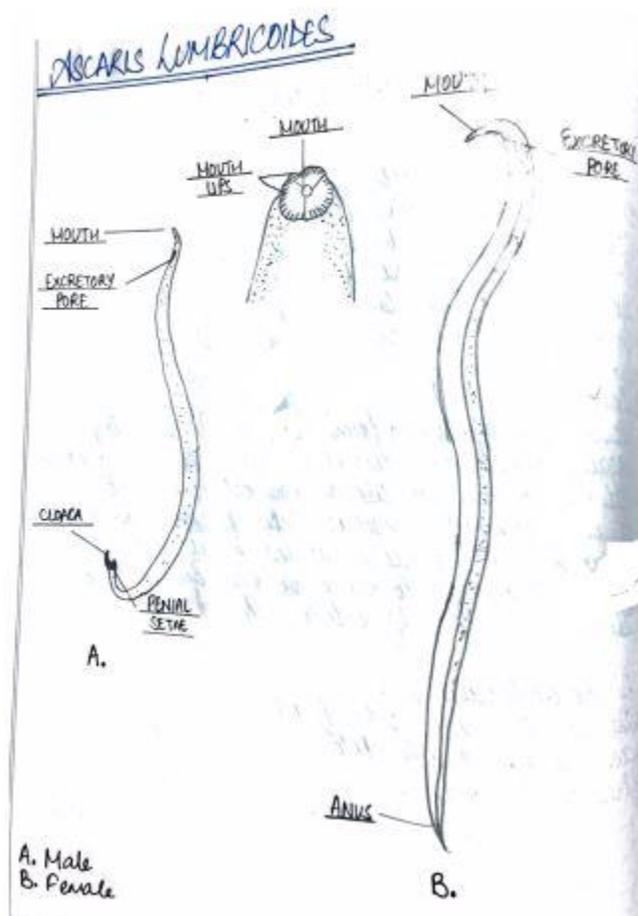
Body is covered with cuticle

Presence of two suckers

ASCARIS LUMBRICOIDES (ROUND WORMS)

CLASSIFICATION:-

- Kingdom – Animalia
- Phylum – Nematelminthes
- Order – Ascaroidea
- Genus – Ascaris
- Species – Lumbrecoides



COMMENTS: It's a common intestinal parasite of a man especially children. Occasionally it may occur in the intestine of pig, sheep, cattle etc.

It has a cylindrical body with tapering ends. The front ends of the body have a terminal triradiate mouth surrounded by three lips.

A little behind anterior end, there is a small excretory pore.

DIAGNOSTIC FEATURES:

Endoparasite

Body covered with cuticle

Mouth guarded by three lips

Elongated body with tapering ends

HIRUDINARIA GRANULOSA (LEECH)

Classification :-

Kingdom – Animalia

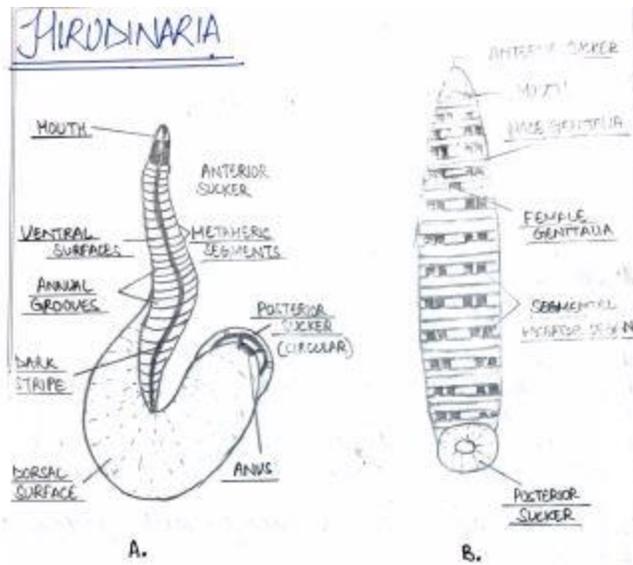
Phylum – Annelida

Class – Hirudiniaria

Order – Grathobdellida

Genus – Hirudinaria

Species – Granulosa



A. Showing both dorsal & ventral view
 B. Ventral view

COMMENTS: It's found in ponds, lakes, rivers, swamps and in moist soil near them

It's a facultative ectoparasite of cattle and other mammals. It sucks blood (sanguinous) by periodically coming in contact with the host body.

Its body is somewhat dorso-vertically flattened and measures about 15 cm in length but it can stretch its length upto 30 cm when required. It is olive green in colour.

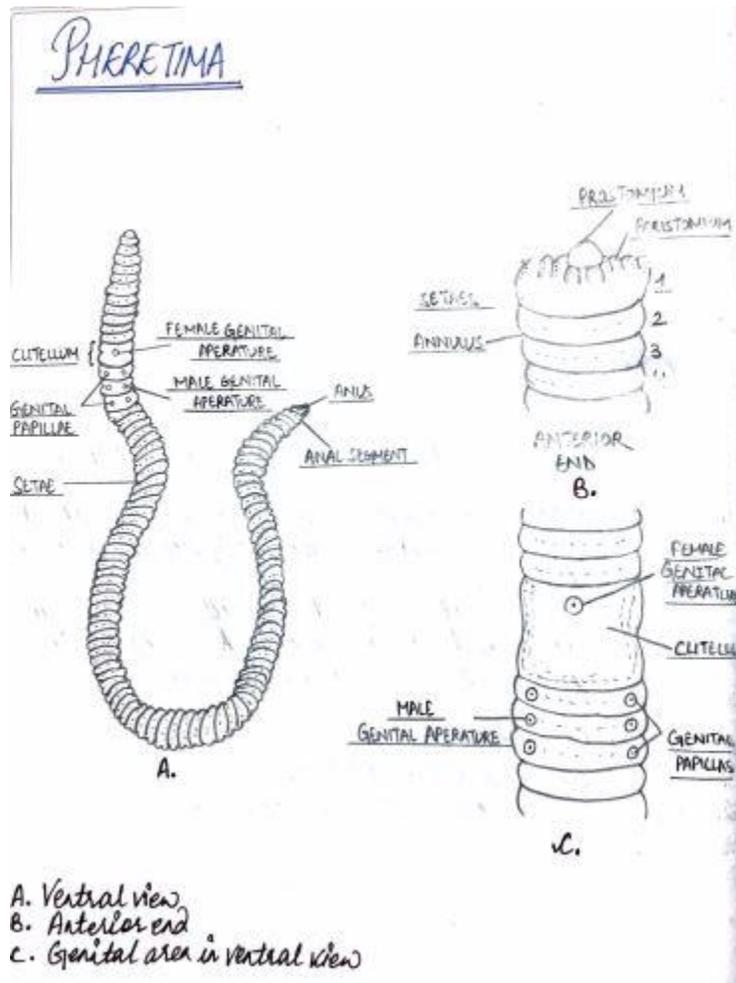
DIAGNOSTIC FEATURES: Slimy, elongated & segmented body

Presence of anterior & posterior suckers

PHERETIMA POSTHUMA (EARTHWORM)

Classification :-

- Kingdom – Animalia
- Phylum – Annelida
- Class – Oligochaeta
- Order – Terricelae
- Genus – Pheretima
- Species – Posthuma



COMMENTS: The segments 14th, 15th & 16th form a band called clitellum. It focuses one or more egg cases or cocoons in which ova are laid & fertilized.

Mouth is present at the anterior end. A fleshy lobe called prostomium dorsally over hangs upon the mouth like a hood. Anus is present in the last segment.

Each segment except the first & the last bears row of minute yellowish setae for locomotion.

DIAGNOSTIC FEATURES: Elongated cylindrical & segmented body

Presence of prostomium & clitellum

Earthworm has setal for locomotion,

PALAEEMON (PRAWN)

Classification :-

- Kingdom – Animalia
- Phylum – Arthropoda
- Class – Crustaceae
- Order – Decapoda
- Genus – Palaemon
- Species – Malcolmsonii

COMMENTS : The body is curved & is almost 5 to 18 cm long. It is distinguished into cephalothorax & a long abdomen. The cephalothorax is dorsally covered by a hard carapace which extends as a serrated process called rostrum. Cephalothorax bears eight pairs of segmented legs & on a pair each antennae, antennules & stalked compound eyes.

DIAGNOSTIC FEATURES: Brown coloured spindle shaped & curved body

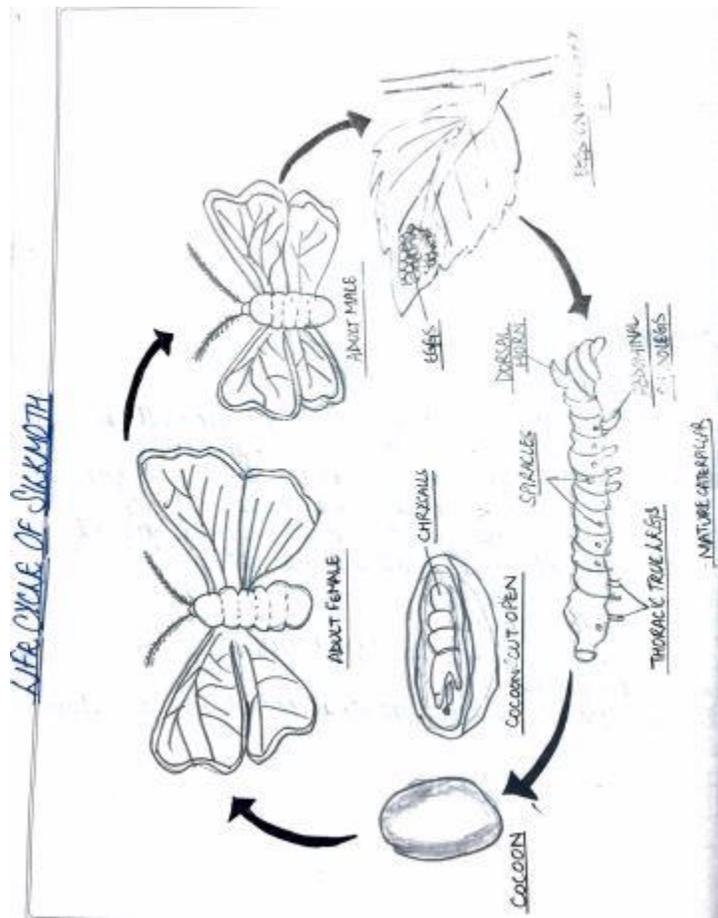
Abdomen six segmented

Cephalothorax is covered by a carapace with serrated rostrum.

BOMBYX MORI (SILKWORM)

Classification :-

Kingdom – Animalia
Phylum – Arthropoda
Class – Insecta
Order – Lepidoptera
Genus – Bombyx
Species – Mori



COMMENTS: Adult silk moth is about 25cm long with two pair of wings. It is creamy white in colour

The body is divisible into head, thorax & abdomen & is covered by minute scales.

The larva undergoes four months & then stop feeding. It secretes a sticky fluid through its spinnerets, which on coming in contact with air becomes silk thread & remains wrapped around its body to form pupa

DIAGNOSTIC FEATURES:

Body is divisible into head, thorax & abdomen

Larva form cocoon

Presence of two pairs of wings & three pairs of legs

BOMBYX MORI (SILK WORM):

Classification:-

- Kingdom – Animalia
- Phylum – Arthropoda
- Class – Insecta
- Order – Lepidoptera
- Genus – Bombyx
- Species – Mori

COMMENTS:

Adult silk moth is about 2.5 cm long with two pairs of wings. It is creamy white in colour.

The body is divisible into head, thorax & abdomen & is covered by minute scales

The larva undergoes four months & then stop feeding. It secretes a sticky fluid through its spinnerets, which on coming in contact with air becomes silk thread & remains wrapped around its body to form pupa

DIAGNOSTIC FEATURES

Body is divisible into head, thorax & abdomen

Larva form cocoon

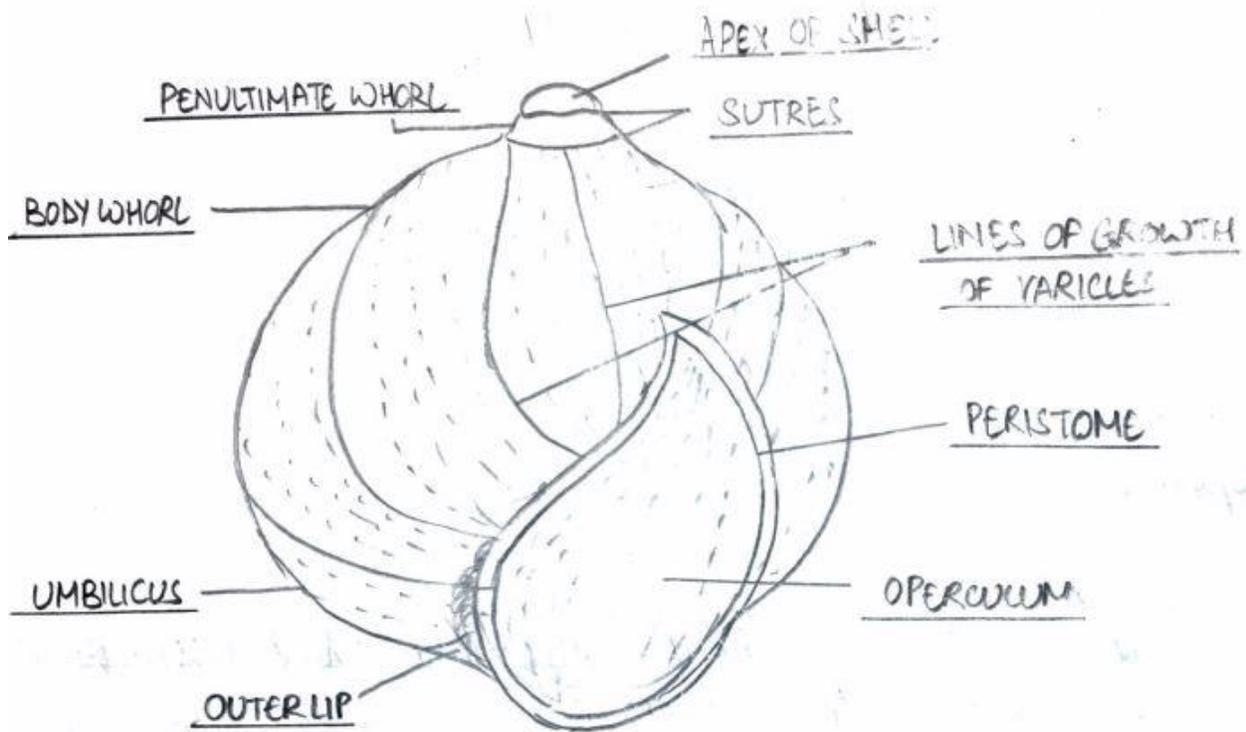
Presence of two pairs of wings & three pairs of legs

PILA GLOBOSA (APPLE SNAIL)

Classification :-

- Kingdom – Animalia
- Phylum – Mollusca
- Class – Gastropoda
- Order – Prosobranchiata
- Genus – Pila
- Species – Globosa

PIKA GLOBOSA



COMMENTS: It has a soft & slimy body enclosed in a coiled calcareous shell. The opening of the shell is closed by a thick plate like operculum.

The body is differentiated into head, foot, visceral mass & mantle

Sexes are separate with slight sexual dimorphism

DIAGNOSTIC FEATURES: Shell is univalved & coiled

Foot is muscular & broad

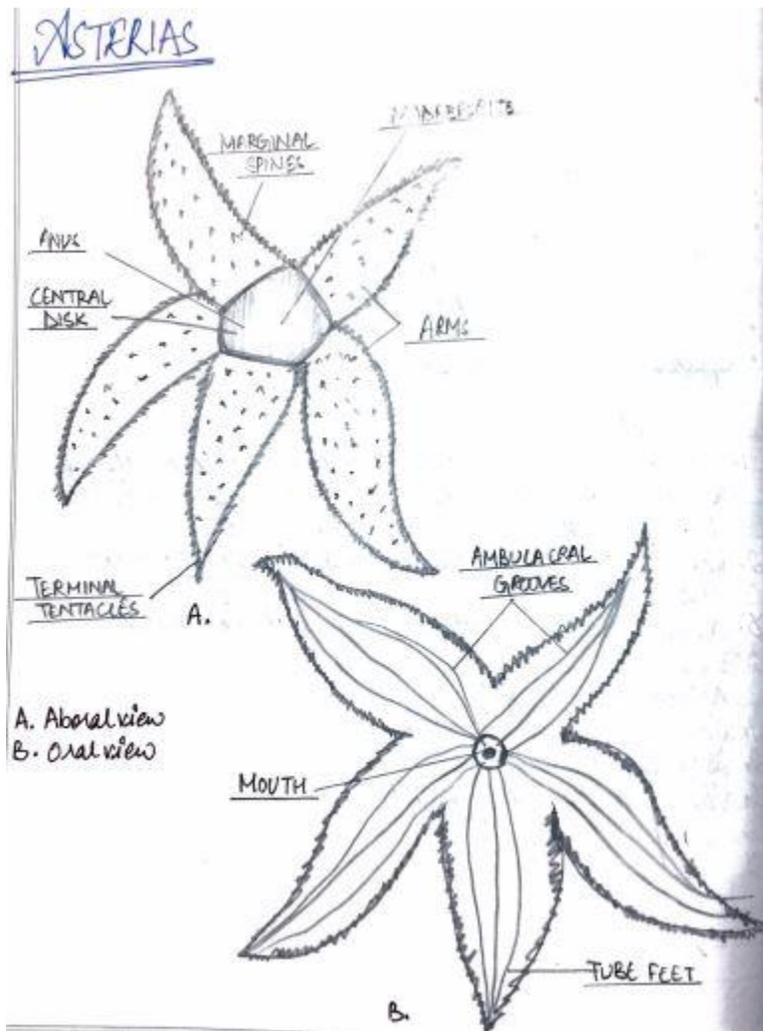
Head distinct with eyes & tentacles

ASTERIAS (STAR FISH)

Classification:-

- Kingdom – Animalia

- Phylum – Echinodermata
- Class – Asterozoa
- Order – Forcipulata
- Genus – Asterias
- Species – Rubens



COMMENTS: The oral surface directed downwards & bears pentagonal mouth in the central disc

Sexes are separate without sexual dimorphism

Aboral surface bears large number of short & movable spines. Anus is present in the centre of the disc.

DIAGNOSTIC FEATURES: Body pentagonal & star shaped

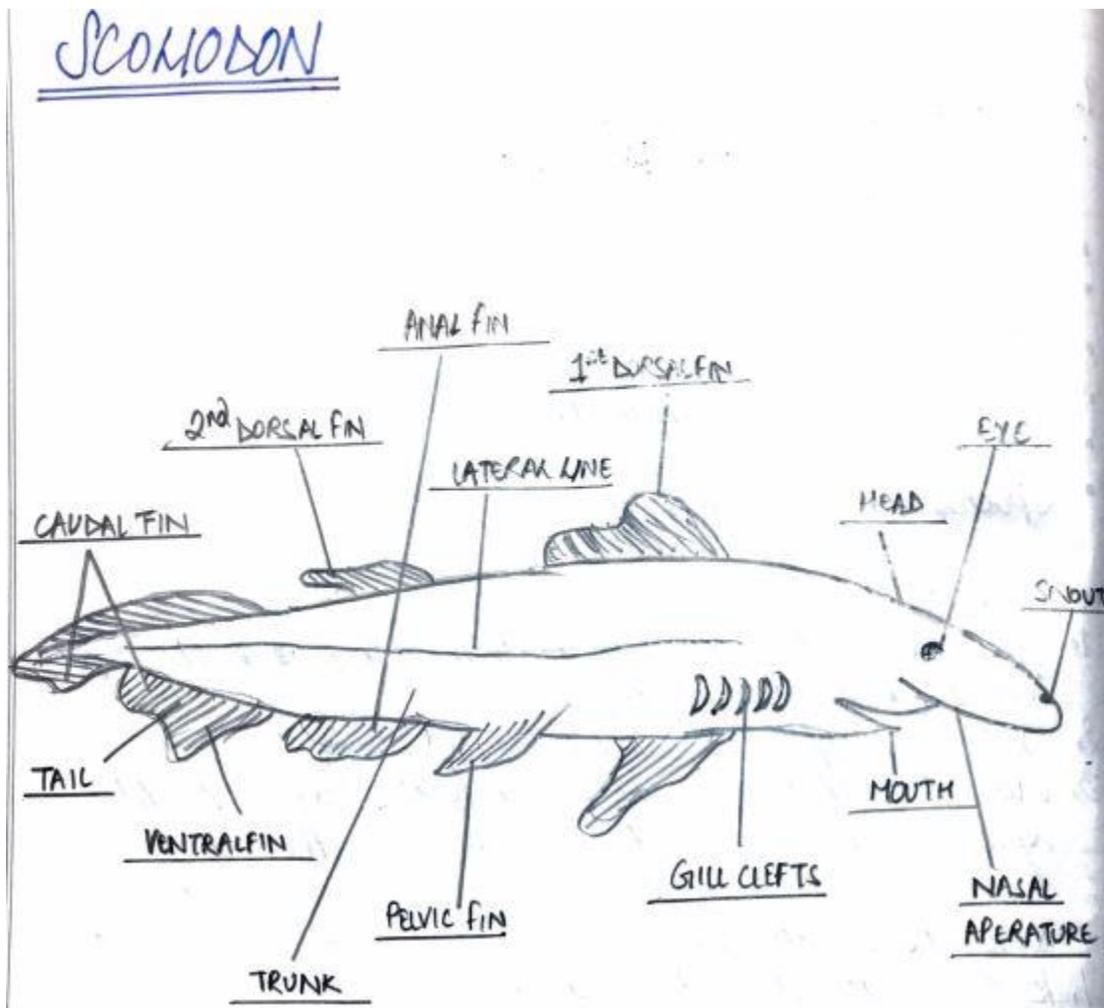
Each arm with four rows of tube feet

Oral & aboral surfaces are quite distinct

SCOLIDON (SHARK/DOG FISH)

Classification:-

- Kingdom – Animalia
- Phylum – Chordata
- Subphylum – Vertebrata
- Class – Chondrichthyes
- Genus – Scoliodon sp.



COMMENTS: It has somewhat laterally compressed & spindle shaped or streamlined body with pointed snout

The body is differentiated head, Trunk & tail.

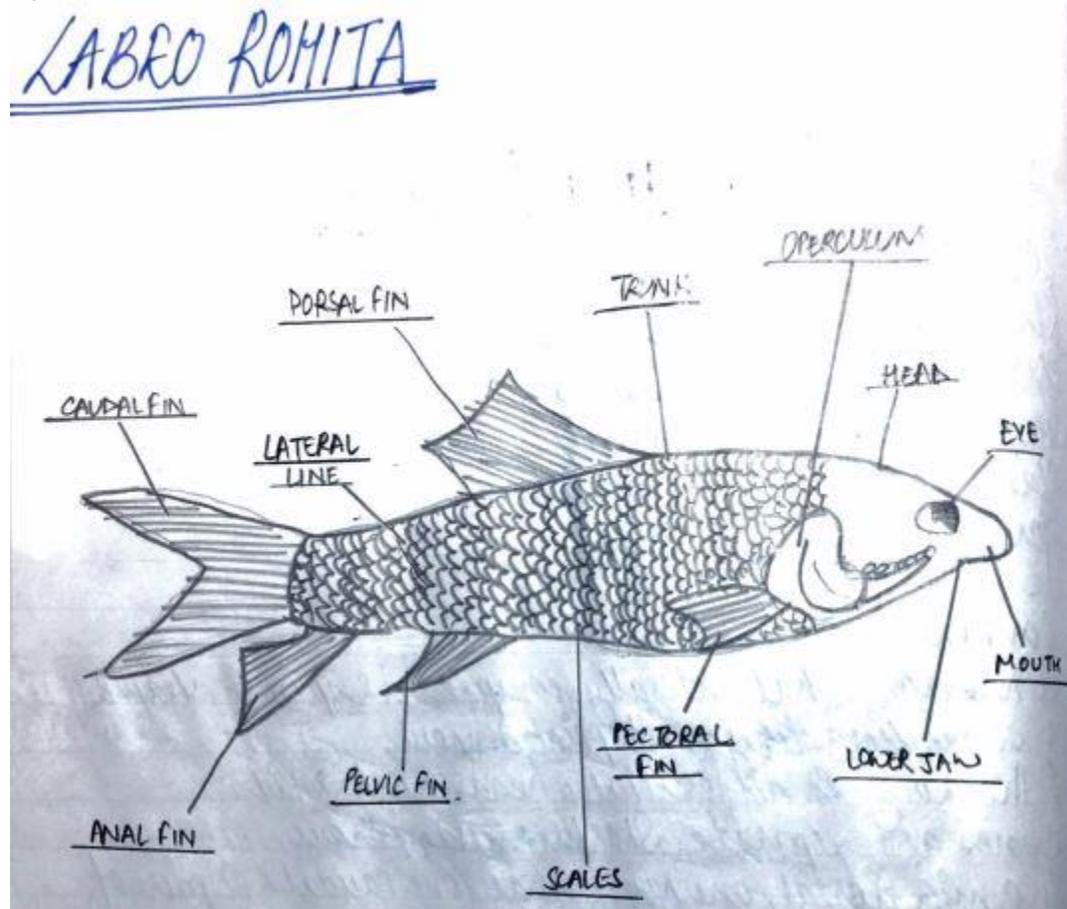
Sexes are separate. Sharks are viviparous

Two mid dorsal, one mid ventral, one caudal & two pairs of lateral fins are present.

LABEO ROHITA (ROHU)

Classification :-

- Kingdom – Animalia
- Phylum – Chordata
- Sub-phylum – Vertebrata
- Class – Osteichthyes
- Genus – Labeo
- Species – Rohita



COMMENTS: It is a fresh water dweller commonly called rohu fish, widely used as food.

Mouth is sub-terminal & ventral. A pair each of nostrils & large lateral eyes without eyelids

There are five gills slits covered by operculars

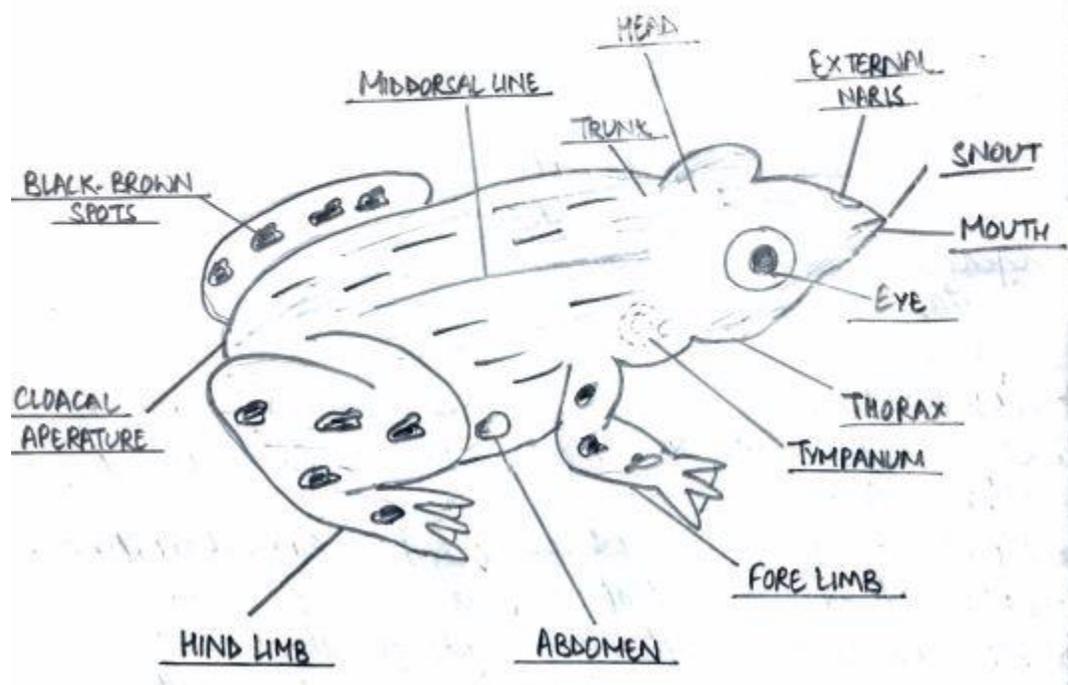
It measures 80-90cm in length. It is covered with overlapping cycloid scales.

RANA YIGRINA (FROG)

Classification:-

- Kingdom – Animalia
- Phylum – Chordata
- Sub-Phylum – Vertbrata
- Class – Amphibia
- Order – Anura
- Genus – Rana
- Species – Tigrina

RANA TIGRINA



COMMENTS: It has somewhat triangular, bilaterally symmetrical, body with head & trunks.

The skin is dark green with black patches, moist & is covered by mucus.

Eyes bulging out without eyelid. Underwater, eyes are protected by their membrane called nictitating membrane.

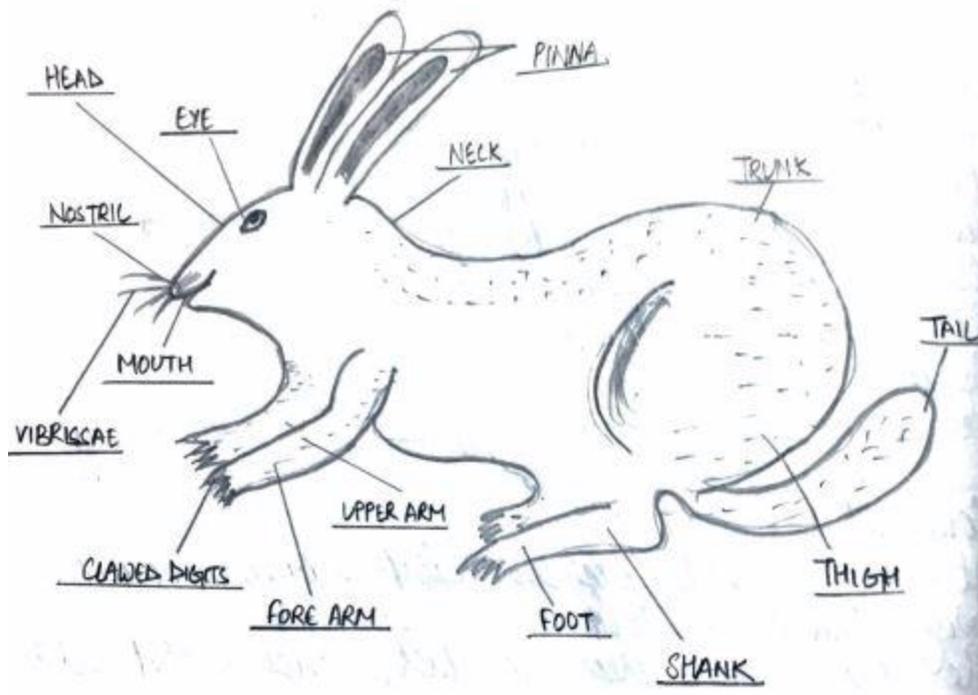
Sexes are separate. Development is indirect

ORYCTOLAGUS CUNICULUS (RABBIT)

Classification:-

- Kingdom – Animalia
- Phylum – Chordata
- Sub phylum – Vertebrata
- Class – Mammalia
- Order – Lagomorpha
- Genus – Oryctolagus
- Species – Cuniculus

ORYCTOLAGUS CONICULUS.



COMMENTS: Its body is divided into head, neck & trunk & small bushy tail. The body is covered with hair of white brown or black colour

Two largely movable pinnae present behind eyes. The eyes are pink in colour

The mouth is bounded by soft & fleshy upper & lower lips

Sexes are separate with sexual dimorphism

Females have mammary glands with nipples in the abdomen

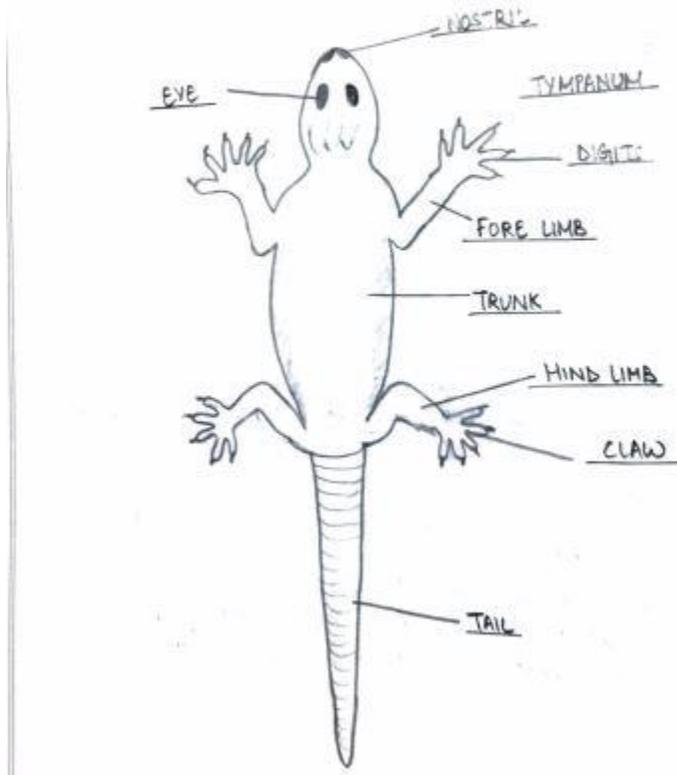
HEMIDACTYLUS (WALL LIZARD)

Classification:-

- Kingdom – Animalia
- Phylum – Chordata
- Sub – Phylum – Reptilia

- Order – Lacertilia
- Genus – Hemidactylus sp.

HEMIDACTYLUS



COMMENTS: Its body is 8-14 cm long, brown in colour & is distinguished into thick & flattered head, short, neck, large trunk & a tapering tail.

The head has pairs of eyes with movable eyelids, nostrils, & ear opening.

The skin is dry, covered with minute scales. The tail with annular pores of scales, which can be scales that can be broken off.

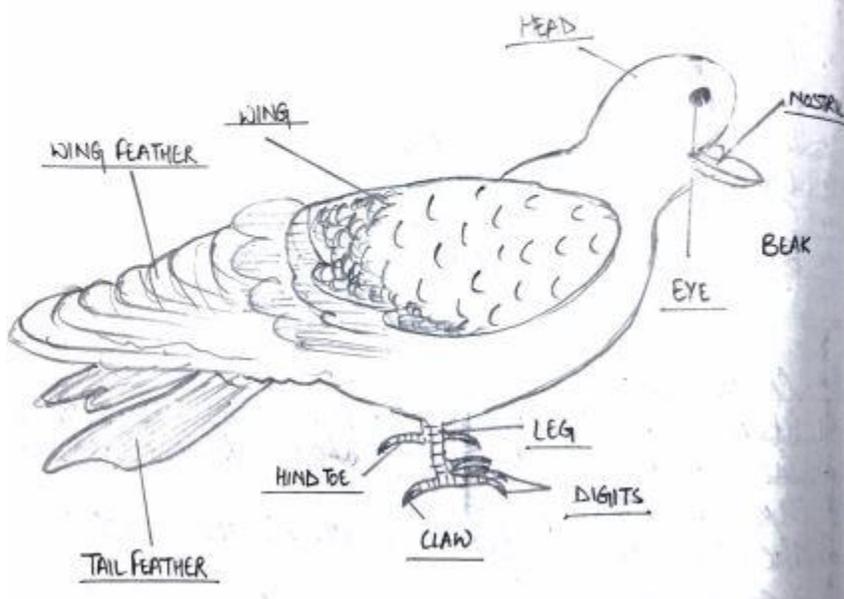
Limbs four in number, each with five clawed digits

COLUMBA LIVIA (PIGEON)

Classification :-

- Kingdom – Animalia
- Phylum – Chordata
- Sub phylum – Vertebrata
- Class – Aves
- Genus – Columba
- Species – Livia

COLUMBA LIVIA



COMMENTS: Its body is 20 to 25 cm long & covered with slate blue feathers

It has a subspherical head, mobile neck, thick trunk & short tail.

The eyes are red in colour.

The beak is small & slightly curved in front

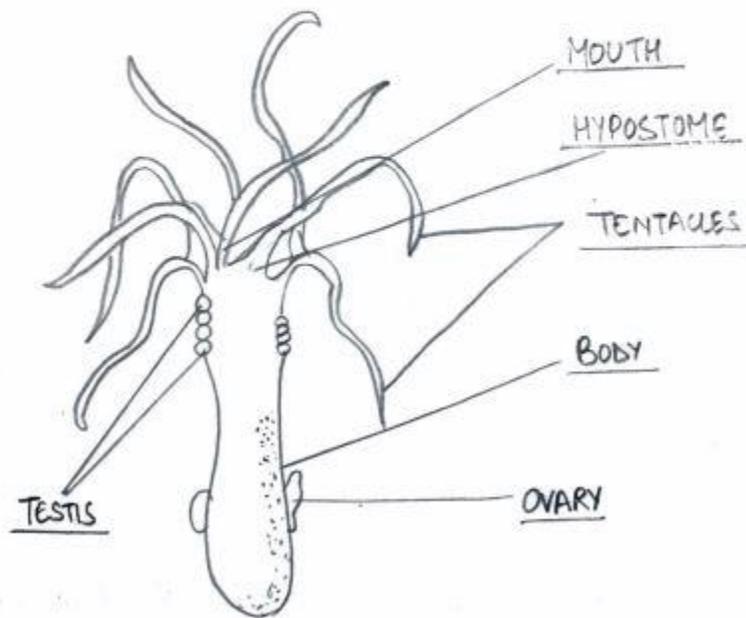
HYDRA

Classification :-

- Kingdom – Animalia

- Phylum – Cnidaria
- Class – Hydrozoa
- Order – Hydrozoidea
- Genus – Hydra
- Species – Vulgaris

HYDRA



COMMENTS: The body consists of an elongated tube with closed base & single opening at oral end.

Body wall consists of two layers of cells (Diploblastic)

Epidermis consists of stinging cells or cnidocytes to act as organ of defence & offence

DIAGNOSTIC FEATURES: Soft bodies & diploblastic

Body is elongated & sac-like

Presence of tentacles & stinging cells