

Chapter-1

Date: _____ Page no: _____

Chordata

Definition or Introduction :-

(notochord, nerve cord, pharyngeal gill slits)

Animals of this phylum are bilateral, enterocoelic, Eucelomate and Enterozoa and have long elastic and tough skeletal rod (notochord) to support the body either at embryonic stage or some in their life. There are about 80 thousand known species of chordates which are found all over the world on land, in water and air fishes, Amphibians, Reptiles, Birds and mammals are main examples of this phylum chordates are larger and much evolved animals than non chordates.

Characters of chordata:-

- * Lower vertebrate are aquatic and higher vertebrate are terrestrial in nature.
- * Body is bilaterally symmetrical, triploblastic and metamericly segmented.
- * Body is clearly divided into head, trunk and post anal tail.
- * Blood vascular system is closed type.

Characters of Amphibia

They live on land as well as in water.
They are cold blooded or poikilothermic animals
It means their body temperature changes according to temperature of the environment.

Head and trunk perfectly distinct. Tail and neck are found in some animals.

Skin is soft, moist and glandular.

Exoskeleton absent and digits without claws.

Skull is dicondylic.

Tongue is protrusible & teeth homodont.

Heart has three chambers.

1) Oviparous

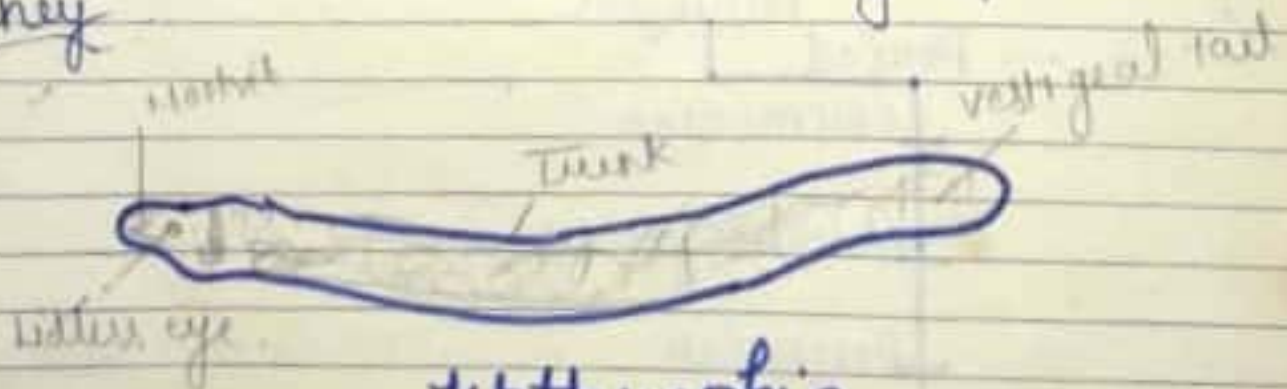
2) Sexes are separate

3) Presence of aquatic larva during development

4) Absence of copulatory organs of male.

5) Adult lurches are symmetrical.

6) Nephrostomes are permanently present in kidney.



Lurthyophis

*Reproduction	mainly sexual	mainly asexual
*Regeneration Power	Almost negligible	well developed
*Body temperature	Warm or cold blooded	Cold blooded
*Hepatic Portal system	Present	Absent
*Respiration.	Through gills or lungs	Through general body surface or gills.

9/10/20

* Respiration through aquatic animals - gills
Respiration through terrestrial animals - lungs

* alimentary canal complete long one called pharyngeal gill slit are not more than 4 pairs.

* Notochord is changed ^{to} vertebral column
Endoskeleton is in the form of skull
vertebral column girdles limbs bones which made up of either bone or cartilage

* Two pairs of lateral appendages are present which help in balancing, locomotion and perform other functions also

* Outer surface of skin covered by a protective exoskeleton which made up of either bone or cartilage.

* Heart may be 2, 3, 4 chambered and ventral in position haemoglobin pigment is form in Red blood corpuscles (R.B.C)

* Excretion by mesonephric, metanephric kidney

* Cranial nerves are 10-12 pairs.

* males and female are separate.

Development is in the form of direct and indirect.

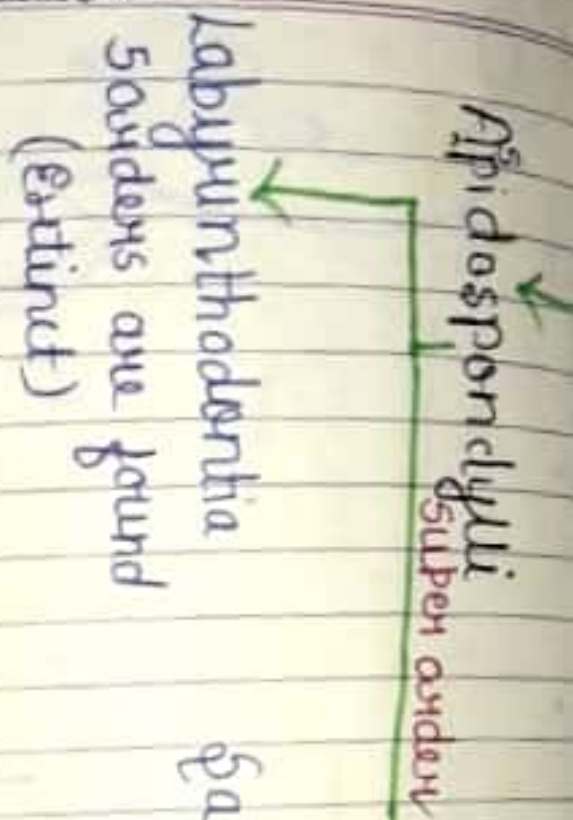
Anterior part of dorsal nerve cord swells and form brain which is covered by cranium and brain box

Each spinal nerve is form by the joining of dorsal and ventral nerve cord.

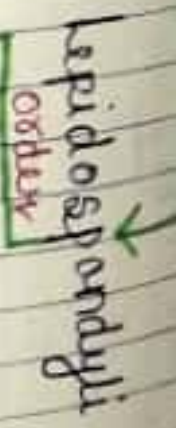
Special sensory organs are in form of eyes and ears

	Chordata	Non Chordata
* Symmetry	Biradial	Radial, Biradial or asymmetrical
* Metamerism	True metamerism	True or Pseudometamerism absent
* Coelom	True coelom present	Pseudocoelomate, Acoelomate or coelom present.
* Blood Vascular System	Closed type	Close or open type or absent.
* Heart	Present on ventral side	Present on dorsal side

Classification



- Procoarura** (Extinct)
 Protopharynxus
- Eoanura** (Extinct)
 Anphibatrachus
Anura
 Ascaphus living



- Aistopoda** [Extinct]
 Opiterpaton
- Neckeridia** (Extinct)
 Biplocanthus
- Microsaurus** (Extinct)
 Lysosaurus
- Phyllospendyli** (Extinct)
 Phyllospendylus
- Urodela** [Living form]
 Salamanders
- Apoda** [Living form]
 Anthyphid