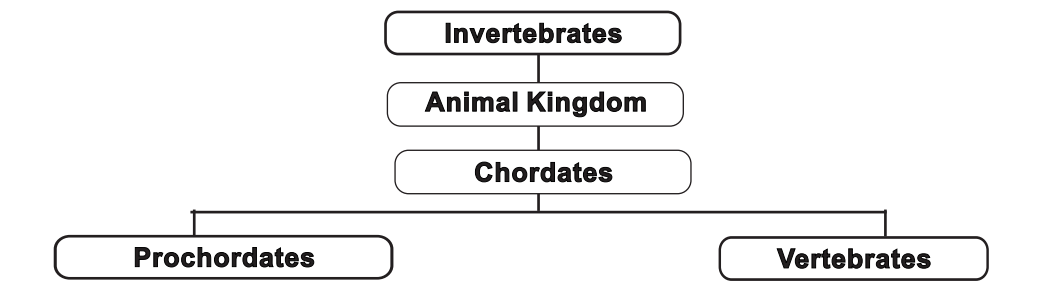


BIOLOGY

UNIT - 17. Animal Kingdom

Mind Map



TEXT BOOK EXERCISES

I. Choose the correct answer.

1. Find the group having only marine members

- a) Mollusca c) Coelenterata e) Echinodermata d) Porifera

Ans : c) Echinodermata

2. Mesoglea is present in

- a) Porifera b) Coelenterata c) Annelida d) Arthropoda

Ans : b) Coelenterata

3. Which one of the following pairs is not a poikilothermic animal

- a) Fishes and Amphibians b) Amphibians and Aves
c) Aves and Mammals d) Reptiles and Mammals

Ans : c) Aves and Mammals

4. Identify the animal having four chambered heart

- a) Lizard b) Snake c) Crocodile d) Calotes

Ans : c) Crocodile

5. The animal without skull is

- a) Acrania b) Acephalia c) Apterina d) Acoelomate

Ans : a) Acrania

6. Hermaphrodite organisms are

- a) Hydra, Tape worm, Earth worm, Amphioxus
b) Hydra, Tape worm, Earth worm, Ascidian
c) Hydra, Tape worm, Earth worm, Balanoglossus
d) Hydra, Tape worm, Ascaris, Earth worm

Ans : b) Hydra, Tape worm, Earth worm, Ascidian

7. Poikilothermic organisms are

- a) Fish, Frog, Lizard, Man b) Fish, Frog, Lizard, Cow
c) Fish, Frog, Lizard, Snake d) Fish, Frog, Lizard, Crow

Ans : c) Fish, Frog, Lizard, Snake

8. Air sacs and pneumatic bones are seen in

- a) Fish b) Frog c) Bird d) Bat

Ans : c) Bird

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9. Excretory organ of tape worm is

- a) flame cells b) nephridia c) body surface d) solenocytes

Ans : a) Flame cells**10. Water vascular system is found in.**

- a) Hydra b) Earthworm c) Star fish d) Ascaris

Ans : c) Star fish**II. Fill in the blanks.**

1. The skeletal framework of Porifera is _____. **Ans : Spicules**
 2. Ctenidia are respiratory organs in _____. **Ans : Phylum Mollusca**
 3. Skates are _____ fishes. **Ans : Cartilaginous**
 4. The larvae of an amphibian is _____. **Ans : Tadpole**
 5. _____ are jawless vertebrates. **Ans : Cyclostomes**
 6. _____ is the unique characteristic feature of mammal. **Ans : Placenta**
 7. Spiny anteater is an example for _____ mammal. **Ans : Egg laying**

III. State whether true or false. If false correct the statement.

1. Canal system is seen in coelenterates.
Ans : False. Correct statement: Canal system is seen in Porifera
 2. Hermaphrodite animals have both male and female sex organs. **Ans : True**
 3. Trachea are the respiratory organ of Annelida.
Ans : False. Correct statement: Trachea is the respiratory organ of Arthropoda.
 4. Bipinnaria is the larva of Mollusca.
Ans : False. Correct statement: Bipinnaria is the larva of Echinodermata.
 5. Balanoglossus is a ciliary feeder **Ans : True**
 6. Fishes have two chambered heart **Ans : True**
 7. Skin of reptilians are smooth and moist
Ans : False. Correct statement: Skin of Amphibians are smooth and moist
 8. Wings of birds are the modified forelimbs **Ans : True**
 9. Female mammals have mammary glands. **Ans : True.**

IV. Match the following :

PHYLUM		EXAMPLES	
(A)	Coelenterata	(i)	Snail
(B)	Platyhelminthes	(ii)	Star Fish
(C)	Echinodermata	(iii)	Tapeworm
(D)	Mollusca	(iv)	Hydra

Ans :

PHYLUM		EXAMPLES	
(A)	Coelenterata	(iv)	Hydra
(B)	Platyhelminthes	(iii)	Tapeworm
(C)	Echinodermata	(ii)	Star Fish
(D)	Mollusca	(i)	Snail

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V. Answer very briefly.**1. Define taxonomy ?**

Ans : Taxonomy is the science of classification which makes the study of wide variety of organisms easier.

2. What is nematocyst ?

Ans : The tentacles bear stinging cells called cnidoblast or nematocyst.

3. Why coelenterates are called diploblastic animals?

Ans : Coelenterates are called as diploblastic animals because, the body wall is made up of two layers of cells namely the outer ectoderm and inner mesoderm.

4. List the respiratory organs of amphibians

Ans : 1. gills, 2. skin, 3. bucco-pharynx, 4. lungs.

5. How does locomotion take place in starfish?

Ans : In starfish the locomotion is affected by tube feet.

6. Are jelly fish and star fish similar to fishes? If no justify the answer.

Ans : Jelly fish - Coelenterata - Invertebrates
 Star fish - Echinodermata - Invertebrates
 Fish - Vertebrates - chordata

7. Why are frogs said to be amphibians?

Ans :

- * Frogs have dual adaptation, they live in land as well as in water.
- * Hence, they are known as amphibians.

VI. Answer briefly.**1. Give an account on phylum Annelida.**

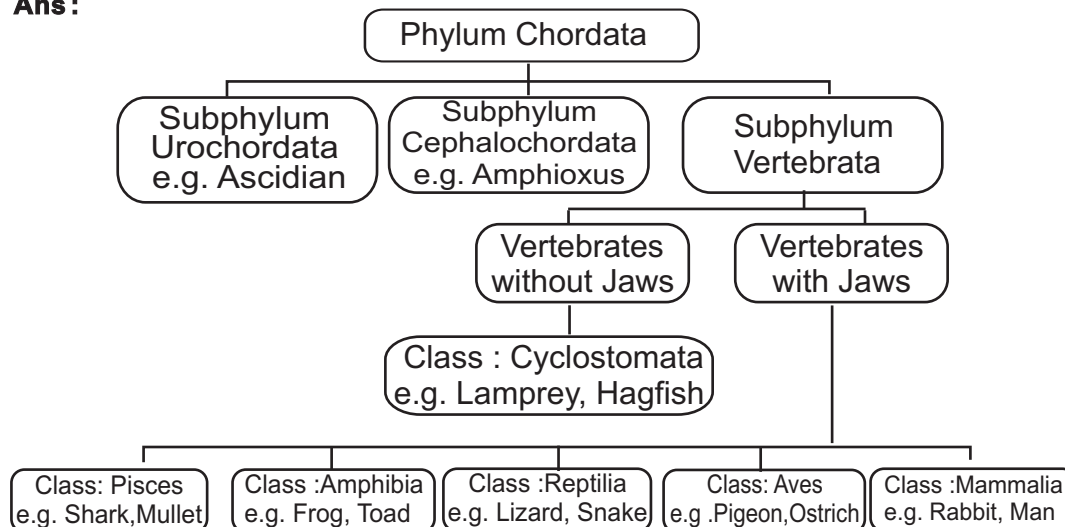
Ans : Phylum Annelida (Segmented worms):

- ★ These are bilaterally symmetrical, triploblastic, first true coelomate animals with organ-system grade of organization.
- ★ Body is externally divided into segments called metameres joined by ring like structures called annuli.
- ★ It is covered by moist thin cuticle.
- ★ Setae and parapodia are locomotor organs.
- ★ Sexes may be separate or united (hermaphrodites).
- ★ e.g- Nereis, Earthworm, Leech.

2. Differentiate between flat worms and round worms?

Ans :

S.No.	Flat worms	Roundworms
1.	It belongs to the phylum platyhelminthes	It belongs to the phylum Nematoda.
2.	Alimentary canal is absent or simple	The alimentary canal is a straight tube.
3.	Acoelomate	Pseudocoelomate
4.	Having both male and female reproduction organism a single individual.	They reproduce sexually and the sexes are separate.
5.	Most of them are parasitic in nature.	They exist as free - living soil forms.
6.	E.g : Liver fluke	E.g : Ascaris

3. Outline the flow charts of Phylum Chordata?**Ans :****4. List five characteristic features of fishes****Ans :Characteristic features of fishes:**

- 1) Fishes are poikilothermic, aquatic vertebrates with jaws.
- 2) The body is streamlined.
- 3) Locomotion is by paired and median fins.
- 4) Their body is covered with scales.
- 5) Respiration is through by gills.

5. Comment on the aquatic and terrestrial habits of amphibians**Ans : Aquatic habits of amphibians:**

- ★ Amphibians undergo metamorphosis in ater.
- ★ Respiration is through by gills, skin.
- ★ Hind limbs have webbed feet to swim.

Terrestrial habits of amphibians:

- ★ In land, amphibians replaces gills with lungs as their respiratory oxygen.

6. How are the limbs of the birds adapted for avian life?**Ans :**

- ★ Forelimbs are modified into wings for flight.
- ★ Bones are filled with air (Pneumatic bones).

VII. Answer in detail.**1. Describe the characteristic features of different Prochordates.**

- ★ The prochordates are considered as the forerunner of vertebrates.
- ★ Based on the nature of the notochord, prochordata is classified into subphylum Urochordata and subphylum Cephalochordata.

(i) Subphylum Urochordata :

Notochord is present only in the tail region of free-living larva.

- ★ Adults are sessile forms and mostly degenerate.
- ★ The body is covered with a tunic or test.
- ★ E.g. Ascidian

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(ii) Subphylum Cephalochordata :

- ★ Cephalochordates are small fish like marine chordates with unpaired dorsal fins.
- ★ The notochord extends throughout the entire length of the body.
- ★ Eg: **Amphioxus**.

2. Give an account on phylum Arthropoda.**Ans : Phylum Arthropoda (Animals with jointed legs) :**

- ★ Arthropoda is the largest phylum of the animal kingdom.
- ★ They are bilaterally symmetrical, triploblastic and coelomate animals.
- ★ The body is divisible into head, thorax and abdomen.
- ★ Each segment bears paired jointed legs.
- ★ Exoskeleton is made of chitin and is shed periodically as the animal grows.
- ★ The casting off and regrowing of exoskeleton is called moulting.
- ★ Body cavity is filled with haemolymph (blood).
- ★ The blood does not flow in blood vessels and circulates throughout the body (open circulatory system).
- ★ Respiration is through body surface, gills or tracheae (air tubes).
- ★ Excretion occurs by malpighian tubules or green glands.
- ★ Sexes are separate.
- ★ E.g., Prawn, Crab, Cockroach, Millipedes, Centipedes, Spider, Scorpions.

Additional questions & answers**I. Choose the best answer:****1. Tapeworm is an example of an.....**

- a) Pseudocoelomate b) Acoelomate c) Coelomate

Ans : b) Acoelomate**2. In Protozoa, locomotion occurs through.....**

- a) Cilia b) Flagella c) Pseudopodia

Ans : c) Pseudopodia**3. Amoebic dysentery is caused by**

- a) Entamoeba histolytica b) Plasmodium sp c) Ascaris lumbricoides

Ans : a) Entamoeba histolytica**4. was the first bird**

- a) Common Emerald Dove b) Albatross c) Archaeopteryx

Ans : c) Archaeopteryx**II. Fill in the blanks:**

1. introduced the method of naming the animals.

Ans : Carolus Linnaeus

2. Culturing of aquatic organisms is referred to as.....

Ans : Aqua culture**III. True or False:**

1. The body of Urochordata is enveloped by a tunic or test.

Ans : True**IV. Answer in briefly.****1. Name the smallest vertebrate.****Ans : Philippine goby / dwarf pygmygoby****2. Define - Coelom.**

Ans : Coelom is a fluid-filled body cavity. It separates the digestive tract from the body wall.

3. Define Pseudocoleomates.

Ans :

- ★ Pseudocoleomates- False body cavity which is not bounded by true epithelial lining
 - ★ E.g. Roundworm
-

4. Identify the name of the largest amphibian in the world?

Ans :

- ★ The Chinese giant salamander Andrias davidians is the largest amphibian in the world.
 - ★ Its length is about five feet and eleven inches.
 - ★ It weighs about 65 kg, found in Central and South China.
-

5. Define Mammals.

Ans :

- ★ Mammals : Warm-blooded vertebrate animals that possess hairs, mammary glands and feed their young ones.
-

6. Define -Toads

Ans: Anurans with smooth skin than that of frogs, terrestrial and leap rather than jump.

7. Define -Amphibian.

Ans: Cold-blooded vertebrate animal of a class that comprises the frogs, toads, newts, salamanders.
