



# BIOLOGY

## BOOKS - VIKRAM PUBLICATION ( ANDHRA PUBLICATION)

### ANIMAL DIVERSITY - I

#### Very Short Answer Questions

1. What physical feature pertaining to the organism and its medium do you notice in a

sponge body form which sponges can be/were identified as animals and not plants ? What do you call the region in the sponge body in which you noticed that feature ?



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2. What are the different structures that makeup the internal skeleton of a sponge ?  
What are the chemicals involved in the formation of these structures ?



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3. What are the functions of canal system of sponges ?



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4. What are the two chief morphological 'body forms' of cnidarians ? What are their chief functions ?



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5. What is metagenesis ? Animals belonging to which phylum exhibit metagenesis ?



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6. What is the cnidarian group with quantitatively / relatively large mesoglea? What is the significance of such a well developed mesoglea pertaining to the aquatic life of that group ?



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7. What is the chief difference between the hydrozoans and the rest of the cnidarians regarding the germinal layer (s) in which its 'defensive structures or cells of defence' occur?



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8. What are the excretory cells of flatworms called ? What is the other important function of these specialized cells ?





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9. Distinguish between amphids and phasmids.



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10. What is the essential difference between a 'flat worm' and a 'round worm' with reference to the perivisceral area of the 'bodies'.



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**11.** How do you account for the origin of the perivisceral space in the body of a nematode and an annelid ?



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**12.** What is metamerism? What is the essential difference between the mode of formation of individual morphological body units of a tapeworm and those of an earthworm ?



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**13.** How do you distinguish a 'hirudinéaun' from the rest of the annelids, based on the morphological features pertaining to metamerism ? How does the coelom of a leech differ from the coelom of an earthworm with reference to its contents ?



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**14.** What do you call the locomotor structures of Nereis ? Why is Nereis called a polychaete ?



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15. What is botryoidal tissue ?



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16. What is the difference between the epidermis, of a nematoda and that of an annelid ? How does a nematode differ from an annelid with reference to the musculature of the body wall ?



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**17.** What do you call the first and second pairs of cephalic appendages of a scorpion ?



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**18.** What is the uniqueness about the first two pairs of cephalic appendages of a crustacean compared to those of the other extant arthropods ?



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**19.** What is the sub-phylum to which ticks' and 'mites' belong ? How do you distinguish them from the insects with reference to their walking legs?



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**20.** What are the respiratory structures of Limulus and Palamnaeus respectively?



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**21.** What are antennae ? What is the arthropod group without antennae ?



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**22.** What do you call the perivisceral cavity of an arthropod? Where from is it derived during development ?



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**23.** Which arthropod, you have studied, is called a living fossil ? Name its respiratory Organs.



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**24.** How do you identify a Chiton from its external appearance ? How many pairs of gills help in the respiration of Chiton?



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**25.** What is the function of radula ? Give the name of the group of molluscs which do not possess a radula ?



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**26.** What is the other name for the gill of a mollusc? What is the function of osphradium ?



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**27.** What is Aristotle's lantern ? Give one example of an animal possessing it.



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**28.** What is the essential difference between the Juveniles (Larvae) and adults of echinoderms, symmetry wise ?



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29. What are blood glands in pheretima ?



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30. What are spermatheca on the body of 'pheretima ?



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**Short Answer Type Questions**



1. Write short notes on the salient features of the anthozoans.



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2. What is the class to which the flukes belongs ? Write short notes on the chief characters of the group



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**3.** What are the salient features exhibited by Polychaetes?



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**4.** How do the hirudineans differ from the polychaetes and oligochaetes?



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5. What are the chief characters of the crustaceans ?



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6. Mention the general characters of Arachnida.



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7. Compare briefly a centipede and a millipede.



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8. Cephalopods show several unique or advanced features when compared to the other molluscs. Discuss briefly.



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9. Which class of Mollusca represents the primitive molluscs? What are their chief features?





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**10.** What are the salient features of the echinoids ?



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**11.** Mention the salient features of Holothuroidea.



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**12.** What is the function of nephridia ?



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**13.** Answer the following

(i) What is the function of nephridia?

(ii) How many types of nephridia are found in earthworm based on their location ?



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**14.** Mention briefly about the circulatory system of earthworm



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**15.** . Name the Phylum to which comb Jellies belong to and mention its important features.



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**16.** Give a brief account of hemichordates.



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**17.** Give three major differences between chordates and non-chordates and draw the sketch of a chordate's body showing those features.



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**18.** Name the four 'hallmarks' of chordates and explain the principal function of each of them.







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**19.** Describe the features of a tunicate that reveals its chordate identity.



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**20.** Compare and contrast sea squirts and lancelets.



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**21.** List out eight characteristics that helps distinguish a fish from the other vertebrates.



**Watch Video Solution**

**22.** Compare and contrast cartilaginous and bony fishes.



**Watch Video Solution**

**23.** Describe the structure of the heart of frog.



**Watch Video Solution**

**24.** Write eight salient features of the class - Amphibia.



**Watch Video Solution**

**25.** Describe the male reproductive system of frog with the help of a labelled diagram.



**Watch Video Solution**

**26.** Write short notes on organs of special senses in frog.



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**27.** List out the salient features of exo and endoskeleton's in reptiles.



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**28.** List out the extant orders of the Class - Reptilia. Give two examples for each Order.



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**29.** What are the modifications that are observed in birds that help them fly?



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**30.** What are the features peculiar to ratite birds ? Give two examples of ratite birds.



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**31.** Mention the most important features of nervous system and sense organs in mammals.



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**32.** Write short notes on the following features of the eutherians.

(a) Dentition, (b) Endoskeleton.



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**33.** Give an example for each of the following.

a. A viviparous fish

b. A fish possessing electric organs

c. A fish possessing poison sting

d. an organ which regulates buoyancy in the

body of a fish

e. an oviparous animal with milk producing glands.



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**34.** Mention two similarities between

(a) Aves and mammals

(b) A frog and a crocodile

(c) A lizard and a snake



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**35.** Name the following animals.

a. A limbless amphibian

b. The largest of all living animals

c. An animal possessing dry and cornified skin

d. 'National animal' of India.



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**36.** Write the generic names of the following.

(a) An oviparous mammal

(b) Flying fox

(c) Blue whale

(d) Kangaroo.



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## Long Answer Type Questions

1. Draw a labelled diagram of the reproductive organs of an earthworm.



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2. Describe the digestive system and process of digestion in pheretima.



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## Important Questions

1. What are the functions of canal system of sponges ?



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**Watch Video Solution**

**15.** Compare briefly a centipede and a millipede.



**Watch Video Solution**

**16.** List out the characters shared by chordates and echinoderms.



**Watch Video Solution**

**17.** What is the importance of endostyle in lancelets and ascidians ?



**Watch Video Solution**

**18.** How do you justify the statement heart in fishes is a branchial heart.



**Watch Video Solution**

**19.** How does the heart of an amphibian differ from that of a reptile ?



**Watch Video Solution**

**20.** What are corporabigemina ? Mention their chief function.



**Watch Video Solution**

**21.** Distinguish between mesorchium and mesovarium.



**Watch Video Solution**

**22.** Distinguish between milt and spawn.



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**23.** Name two poisonous and non-poisonous snakes found in south India.



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**24.** In which features does the skin of a reptile differ from that of a frog ?



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**25.** Name the four extra embryonic membranes.



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**26.** What are Jacobson's organs? What is their function?



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**27.** What is 'wish bone' ? What are the skeletal components that form it ?



**Watch Video Solution**

**28.** Distinguish between the crop and the gizzard in birds.



**Watch Video Solution**



**29.** Name the three meninges. In which group of animals do you find all of them ?



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**30.** Name the vertebrates groups in which 'renal portal system' is absent.



**Watch Video Solution**

**31.** Give three major differences between chordates and non-chordates and draw the sketch of a chordate's body showing those features.



**Watch Video Solution**

**32.** Name the four 'hallmarks' of chordates and explain the principal function of each of them.



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**33.** Describe the features of a tunicate that reveals its chordate identity.



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**34.** Compare and contrast cartilaginous and bony fishes.



**Watch Video Solution**

**35.** Describe the structure of the heart of man with the help of neat labelled diagram.



**Watch Video Solution**

**36.** Write eight salient features of the class - Amphibia.



**Watch Video Solution**

**37.** What are the features peculiar to ratite birds ? Give two examples of ratite birds.



**Watch Video Solution**

**38.** Mention two similarities between

- (a) Aves and mammals
- (b) A frog and a crocodile
- (c) A lizard and a snake



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## Very Short Answer Type Questions

1. List out the characters shared by chordates and echinoderms.



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2. Write four salient features of cyclostomes.



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**3.** What is the importance of endostyle in lancelets and ascidians ?



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**4.** Name the type of caudal fins and scales that are present in a Shark and Catla respectively.



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5. What is the importance of air bladder in fishes ?



**Watch Video Solution**

6. How do you justify the statement heart in fishes is a branchial heart.



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7. What are claspers ? Which group of fishes possesses them ?



**Watch Video Solution**

8. How does the heart of an amphibian differ from that of a reptile ?



**Watch Video Solution**

**9.** Name the structures that appeared for the first time in amphibian, in the course of evolution.



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**10.** How do you distinguish a male frog from a female frog ?



**Watch Video Solution**

**11.** What is 'force pump' in frog ? Why is named so ?



**Watch Video Solution**

**12.** What are corporabigemina ? Mention their chief function.



**Watch Video Solution**

**13.** Distinguish between mesorchium and mesovarium.



**Watch Video Solution**

**14.** Distinguish between milt and spawn.



**Watch Video Solution**

**15.** What are the 'Golden ages' of the first jawed vertebrates and the first amniotes ?



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**16.** Name two poisonous and non-poisonous snakes found in south India.



[Watch Video Solution](#)

**17.** In which features does the skin of a reptile differ from that of a frog ?



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**18.** Describe a cat and a lizard on the basis of their chief nitrogenous wastes excreted.



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**19.** Name the four extra embryonic membranes.



**Watch Video Solution**

**20.** What are jacobson's organs ? What is their function ?



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**21.** What are pneumatic bones ? How do they help birds ?



**Watch Video Solution**

**22.** What is 'wish bone' ? What are the skeletal components that form it ?



**Watch Video Solution**

**23.** What is continuous oxygenation of the blood ? How is it made possible in birds.



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**24.** Distinguish between the crop and the gizzard in birds.



**Watch Video Solution**

**25.** Distinguish between altricial and precocial hatchlings.



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**26.** In which group of animals do we find three ear ossicles on each side and what are their names from the inner most to the outermost ?



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**27.** How does a mature RBC of a mammal differ from that of other vertebrates ?



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**28.** Name the characteristic type of vertebrae found in reptiles, birds and mammals.



**Watch Video Solution**

**29.** Name the three meninges. In which group of animals do you find all of them ?



**Watch Video Solution**

**30.** Name the vertebrates groups in which 'renal portal system' is absent.



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