

# **BIOLOGY**

# **BOOKS - NAVNEET PUBLICATION**

## **ANIMAL CLASSIFICATION**

**Examples** 

**1.** Which criteria are used for classification of organisms ?



2. How the plants are classified?



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Exercise

- A. Darwin, Mendel
- B. Lamarck, De Vries
- C. Morgan, Mayor
- D. Dobzansky, Meyer

#### **Answer: D**



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**2.** Choose the correct alternative and write its alphabet against the sub question number:

Artificial method of animal classification was proposed by ......

- A. Aristotle
- B. Darwin
- C. Lamarck
- D. Whittaker

### **Answer: A**



A. sessile

B. sedentary

C. lame

D. motionless

#### **Answer: B**



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4. Choose the correct alternative and write its alphabet against the sub question number:

In coelenterates, ...... are useful for capturing the prey whereas ...... inject the toxin in the body of prey.

A. tentacles, cnidoblast

B. hands, legs

C. flagella, sting

D. cilia, sting cells

#### **Answer: A**



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**5.** Choose the correct alternative and write its alphabet against the sub question number:

Body of annelidan animals is long, cylindrical and............ Segmented

A. annular

B. metamerically

C. jointed

D. cuticular

#### **Answer: B**



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**6.** Choose the correct alternative and write its alphabet against the sub question number:

......is second largest phylum in animal

kingdom

A. Mollusca

- B. Arthropoda
- C. Porifera
- D. Platyhelminthes

#### **Answer: A**



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**7.** Choose the correct alternative and write its alphabet against the sub question number:

Endoskeleton of Cyclostomata animals is

•••••

- A. bony
- B. bony and cartilaginous
- C. cartilaginous
- D. none of the above

#### **Answer: C**



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**8.** Choose the correct alternative and write its alphabet against the sub question number:

Body cavity between the body and internal organs is called .....

A. gastrocoel

B. enteron

C. coelom

D. cave

## **Answer: C**



**9.** Choose the correct alternative and write its alphabet against the sub question number:

Larvae of..... metamorphose into adults after settling down at bottom of the sea.

Hemichordata

Urochordata

Cephalochordata

Cyclostomata

A. Hemichordata

B. Uruchordata

C. Cephalochordata

D. Cyclostomata

**Answer: B** 



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**10.** Body organization of unicellular animals is referred to as \_\_\_\_\_ organization.

A. cellular

B. tissue

C. protoplasmic

D. organ

#### **Answer: C**



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**11.** Choose the correct alternative and write its alphabet against the sub question number:

.....is a cold blooded animal.

A. Bat

B. Snake

C. Rabbit

D. Elephant

**Answer: B** 



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12. Choose the correct alternative and write its alphabet against the sub question number:Calcareous spines are present on the body of ....... animal.

fish

snail sponge star fish A. fish B. snail C. sponge D. star fish **Answer: D** 

13. Choose the correct alternative and write its alphabet against the sub question number:

Due to which similar characteristic honey bee and cockroach are included in the same phylum?

- A. Wings
- B. Three pair of legs
- C. Jointed appendages
- D. Antenna

**Answer: C** 

**14.** Which special cells are present in the body of sponges (Porifera)?

A. Collar cells

B. Cnidoblasts

C. Germ cells

D. Ectodermal cells

Answer: A



**15.** Which of the following animals' body shows bilateral symmetry?

- A. Starfish
- B. Jellyfish
- C. Earthworm
- D. Sponge

**Answer: C** 



**16.** Which of the following animals can regenerate it's broken body part?

- A. Cockroach
- B. Frog
- C. Sparrow
- D. Starfish

**Answer: D** 



- A. Amphibia
- B. Reptilia
- C. Aves
- D. Mammalia

**Answer: D** 



18. Write whether the following statements are true or false with proper explanation:

Greek philosopher Linnaeus was the first to perform the animal classification



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19. Write whether the following statements are true or false with proper explanation:Greek philosopher Linnaeus was the first to perform the animal classification



20. Write whether the following statements are true or false with proper explanation:

Arthropoda animals bear numerous pores on their body.



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**21.** Write whether the following statements are true or false with proper explanation :

Porifera animals have special] type of collar cells



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22. Write whether the following statements are true or false with proper explanation:Aschelminthes have acoelomate and bilaterally symmetrical body.



23. Write whether the following statements are true or false with proper explanation:

Planet Earth has highest number of animals from phylum Arthropoda.



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24. Write whether the following statements are true or false with proper explanation:Animals belonging to phylum Annelida perform locomotion with the help of tube-feet

25. Write whether the following statements are true or false with proper explanation:

Herdmania has notochord in only tail region and hence it is called Urochordate.



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**26.** Write whether the following statements are true or false with proper explanation :

Mammals breathe with the help of lungs.

**27.** Write whether the following statements are true or false with proper explanation :

Amphibians are warm blooded.



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### 28. Match the columns:

(1)	Phylum	Characteristics
(1) Mollusca		(a) Collar cells
(2) Hemichordata		(b) Mantle
		(c) Trunk
		(d) Cnidoblasts



### 29. Match the columns:

(2)	Phylum	Characteristics	
(1) Porifera		(a) Tunic	
(2) Coelenterata		(b) Collar cells	
		(c) Tentacles bearing cnidoblasts	
		(d) Mantle	



#### 30. Match the columns:

(3) Subphylum/Class	Characteristics	
(1) Cyclostomata	(a) Collar cells	
(2) Urochordata	(b) Sucker	
	(c) Tunic	
	(d) Chitinous exoskeleton	



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#### 31. Find the odd one out:

Physalia, Hyalonema, Euplectella, Spongilla



Planaria, Liverfluke, Filarial worm, Tapeworm



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33. Find the odd one out:

Star fish, Sea-urchin, Nereis, Sea-cucumber



Cockroach, Butterfly, Spider, Honey bee



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35. Find the odd one out:

Amphioxus. Herdmania, Doliolum, Oikopleura



Frog, Tortoise, Toad, Salamander



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37. Find the odd one out:

Tube feet, Setae, Parapodia, Sucker



Shark, Sting ray, Electric ray, Pomfret



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**39.** Find the correlation:

Annelida: Earthworm:: Platyhelminthes:

•••••



**40.** Find the correlation:

Horse: Mammal:: Seahorse: ........



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41. Find the correlation:

Parapodia: Annelida:: Tube feet: .........



**42.** Find the correlation:

Frog: Amphibia:: Turtle: .....



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**43.** Find the correlation :

Proboscis: Hemichordata:: Suctorial mouth:

•••••



### 44. Find the correlation:

Bird from very cold regions : Penguin :: Aquatic

Mammal from very cold regions: ..........



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## **45.** Complete the chart:

<b>Body cavity</b>	Germ Layer	Phylum
Absent		Porifera
Absent	Triploblastic	
Pseudocoelom		Aschelminthes
Present		Arthropoda



## **46.** Complete the chart:

Type	Character	Examples
Cyclostomata		
	Gill respiration	
Amphibia		
		Whale, Cat, Man
	Poikilotherms	



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47. Distinguish between:

Butterfly and Bat.



48. Distinguish between:

Non-Chordates and Chordates



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49. Distinguish between:

phylum Platyhelminthes and Phylum Aschelminthes. OR Write any two points of differences between flat worms and round worms.



**50.** Distinguish between:

Urochordata and Cephalochordata



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**51.** Distinguish between:

Cyclostomata and Pisces



**52.** Distinguish between:

Amphibia and Reptilia.



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**53.** Aves and Mammalia



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54. Identify me.

I am diploblastic and acoelomate. Which phylum do I belong to?



55. Identify me.

My body is radially symmetrical. Water vascular system is present in my body. I am referred as fish though I am not. What is my name?



### **56.** Identify me:

I live in your small intestine. Pseudocoelom is present in my thread like body. In which phylum will you include me?



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# 57. Identify me:

Though I am multicellular, there are no tissues in my body. What is the name of my phylum?



**58.** Identify me.

Who am I? I have suckers. I am blood sucking ectoparasite and my body is segmented.



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**59.** Identify me.

Who am I? I have suckers. I am blood sucking ectoparasite and my body is segmented.



60. Classification-based questions:

identify me:

I have chitinous exoskeleton, I have four pairs of walking appendages. I can sting you. Who am I? What phylum do I belong to?



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**61.** Write the characterstics of following animals with reference to their classification: Bathsponge.



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**62.** Write the characterstics of following animals with reference to their classification: Jelly fish.



**63.** Write the characterstics of following animals with reference to their classification: Grasshopper.



**64.** Write the characterstics of following animals with reference to their classification:



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**65.** Write the characterstics of following animals with reference to their classification:

Frog



**66.** Write the characterstics of following animals with reference to their classification:



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**67.** Write the characterstics of following animals with reference to their classification: Penguin.



**68.** Write the characterstics of following animals with reference to their classification: Elephant.



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**69.** Characters of a phylum are given below.

Read them carefully and answer the questions

::

(a) Spines of calcium carbonate are present on the body. (b) These animals are exclusively

marine. (c) They perform the locomotion with the help of tube feet. (d) Their skeleton is made up of calcareous plates or spicules.

Animals of which phylum show the above character?



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**70.** Characters of a phylum are given below.

Read them carefully and answer the questions

::

(a) Spines of calcium carbonate are present on

the body. (b) These animals are exclusively marine. (c) They perform the locomotion with the help of tube feet. (d) Their skeleton is made up of calcareous plates or spicules.

Give an example from that phylum.



::

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**71.** Characters of a phylum are given below.

Read them carefully and answer the questions

(a) Spines of calcium carbonate are present on

the body. (b) These animals are exclusively marine. (c) They perform the locomotion with the help of tube feet. (d) Their skeleton is made up of calcareous plates or spicules. Give an example from that phylum.



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**72.** Identify my class/phylum and give one example of it.

I have mammary glands and exoskeleton in the form of hair.

**73.** Identify my class/phylum and give one example of it.

We form the highest number of animals on the planet. We have bilateral symmetry and our exoskeleton is in the form of chitin.



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**74.** Identify my class/phylum and give one example of it.

I live in your small intestine, my body is long and thread like and pseudocoelomate.



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75. Classification-based questions:

Tell me who am I? What is my class/phylum?

My body is divided into proboscis, collar and trunk. I am marine animal.



76. Classification-based questions:

Tell me who am I? What is my class/phylum?

I stay inside two shells. My body is divided into head, foot and visceral mass.



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77. Classification-based questions:

Tell me who am I? What is my class/phylum?

I am male as well as female. I am endoparasite

having a coelmate and bilaterally symmetrical and flattened body.



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78. Classification-based questions:

Tell me who am I? What is my class/phylum?

I am sedentary marine animal drinking water all the time through numerous pores on the body.



79. Classification-based questions:

Tell me who am I? What is my class/phylum?

I am venomous, eight legged creature havinf chitinous exoskeleton.



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80. Classification-based questions:

Tell me who am I? What is my class/phylum?

My body is covered by tunic. As a larva I swim

but as an adult I settle down.



**81.** Give scientific classification of shark upto class.



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**82.** Identify the class of given animals and write one characteristic of it:

Kangaroo



**83.** Identify the class of given animals and write one characteristic of it:

Penguin



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**84.** Identify the class of given animals and write one characteristic of it:

Crocodile



**85.** Identify the class of given animals and write one characteristic of it:

Frog



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**86.** Identify the class of given animals and write one characteristic of it:

Sea-horse.



**87.** Give scientific reasons.

Our body irritates if it comes in contact with jellyfish.



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**88.** Balanoglossus is a connecting link between Non-chordates and Chordates.



**89.** Balanoglossus is a connecting link between Non-chordates and Chordates.



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**90.** Vertebrates are Chordates but all Chordates are not Vertebrates.



#### 91. Give scientific reasons:

Though tortoise lives on land as well as in water, it cannot be included in class- Amphibia.



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### 92. Give scientific reasons:

Body temperature of reptiles is not constant.



**93.** Write in brief about progressive changes in animal classification.



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94. State four benefits of animal classification?



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**95.** What is the exact difference between grades of organization and symmetry? Explain

with examples?



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**96.** Answer the following questions:

Into which phyla is Non-Chordata divided? In which three subphyla are Chordates divided?



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**97.** To which phylom does cockroach belong? Justify your answer with scientific reasons.



**98.** Write four distinguishing characters of phylum-Echinodermata.



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**99.** Answer the following questions:

Write the characteristics of chordates.



100. Answer the following questions:

Write the characteristics of vertebrates.



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**101.** Animals like gharial and crocodile live in land. Are they amphibians or reptiles?



**102.** Animals like whale, walrus live in water (ocean). Whether they are included in Pisces or Mammalia?



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**103.** Write short note on Benefits of classification.



**104.** Write short notes on: Germ layers.



**105.** Wrire short note on Coelom.



106. Wrire short note on Notochord.



**107.** complete the paragraph by choosing the appropriate words given in the brackets: (Linnaeus, ~ Dobzhansky, Carl Woese, Theophrastus, Artificial method, Aristotle, Natural system, Traditional system) Time to time, different scientists have tried to classify the animals. Greek philosopher..... was the first to perform the animal classification. Aristotle classified the animals, according to the criteria like body size, habits and habitats. classification proposed by Aristotle is known as ...... Besides Aristotle, artificial method of classification was followed by ...... Pliny, John Ray and ..... Later on, .....of classification' was followed. Natural system of classification was based on various other criteria. Ry the time, system of classification based on evolution was also brought into practice. It was used by ...... and Meyer. Recently, ..... has also proposed the animal classification.



**108.** complete the paragraph by choosing the appropriate words given in the brackets: Class Amphibia consist of animals which are strictly ...... only during their larval stages.At that time they breathe through their ......Tadpoles are such stages which later ....... to form adult frog. Adult frog respires with the help of ..... when in water and with ..... when on land. Thus, it is a true ....... For performing cutaneous respiration, i.e. respiration through skin, they lack ...... in any form. The skin is also kept moist by staying near the water bodies. Amphibians do not

have a ...... but eyes are bulging and prominent, this solves the problems of vision.



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**109.** Read the paragraph and answer the questions given below:

Locomotion is considered as an important characteristics of the animals. However, animals belonging to Porifera are said to be sedentary. Every other phylum has typical locomotory organs. E.g. Nereis crawls with the

help of parapodia, whereas earthworm buries in soil by setae. Spiders have four pairs of walking legs, crab has five while all insects have three pairs of walking legs. The walking legs are also called appendages. Starfish moves with the help of tube feet. Snails and bivalves use muscular foot for locomotion. Birds flying with their spread out wings and fish swimming with their fins, both have spindle-shaped body tapering at both the ends. While flying or swimming such body offers least resistance during locomotion. Mammals have two pairs of limbs while

animals like snakes are limbless. Other animals belonging to the class of snakes also have very weak limbs.which make them creep on the ground.

Answer the question:

What are the locomotory organs in phylum Annelida?



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**110.** Read the paragraph and answer the questions given below:

Locomotion is considered as an important characteristics of the animals. However, animals belonging to Porifera are said to be sedentary. Every other phylum has typical locomotory organs. E.g. Nereis crawls with the help of parapodia, whereas earthworm buries in soil by setae. Spiders have four pairs of walking legs, crab has five while all insects have three pairs of walking legs. The walking legs are also called appendages. Starfish moves with the help of tube feet. Snails and bivalves use muscular foot for locomotion. Birds flying with their spread out wings and

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fish swimming with their fins, both have

Answer the question:

Which phylum has a characteristic of jointed appendages?



**111.** Read the paragraph and answer the questions given below:

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Answer the question:

Which the locomotory organ of animals belong to Phylum Mollusca?



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**112.** Read the paragraph and answer the questions given below:

Locomotion is considered as an important characteristics of the animals. However, animals belonging to Porifera are said to be sedentary. Every other phylum has typical

locomotory organs. E.g. Nereis crawls with the help of parapodia, whereas earthworm buries in soil by setae. Spiders have four pairs of walking legs, crab has five while all insects have three pairs of walking legs. The walking legs are also called appendages. Starfish moves with the help of tube feet. Snails and bivalves use muscular foot for locomotion. Birds flying with their spread out wings and fish swimming with their fins, both have spindle-shaped body tapering at both the ends. While flying or swimming such body offers least resistance during locomotion. Mammals have two pairs of limbs while animals like snakes are limbless. Other animals belonging to the class of snakes also have very weak limbs.which make them creep on the ground.

Answer the question:

Which class of animals show weak legs?



**113.** Read the paragraph and answer the questions given below:

Locomotion is considered as an important characteristics of the animals. However, animals belonging to Porifera are said to be sedentary. Every other phylum has typical locomotory organs. E.g. Nereis crawls with the help of parapodia, whereas earthworm buries in soil by setae. Spiders have four pairs of walking legs, crab has five while all insects have three pairs of walking legs. The walking legs are also called appendages. Starfish moves with the help of tube feet. Snails and bivalves use muscular foot for locomotion. Birds flying with their spread out wings and

spindle-shaped body tapering at both the ends. While flying or swimming such body offers least resistance during locomotion. Mammals have two pairs of limbs while animals like snakes are limbless. Other animals belonging to the class of snakes also have very weak limbs.which make them creep on the ground.

fish swimming with their fins, both have

Answer the question:

In which class of animals the forelimbs are modified?



**114.** Sketch , label and classify

Hydra



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**115.** Diagram-based questions:

Sketch label and classify the following organism:

Jellyfish



116. Sketch, label and classify

Planaria



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117. Diagram-based questions:

Sketch label and classfiy the following organism:

Liverfluke:



Sketch label and classfiy the following organism:

Round worm:



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**119.** Sketch, label and classify

**Earthworm** 



Sketch label and classfiy the following organism:

Leech



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**121.** Sketch , label and classify

Butterfly



Sketch label and classfiy the following organism:

Cockroach



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123. Sketch , label and classify

Octopus



124. Sketch, label and classify Starfish



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125. Sketch, label and classify

Shark



126. Sketch, label and classify

Frog



127. Sketch, label and classify

Wall Lizard

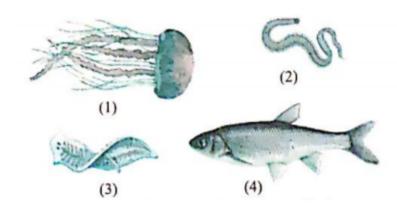


128. Sketch, label and classify

Pigeon



Label the following animals:

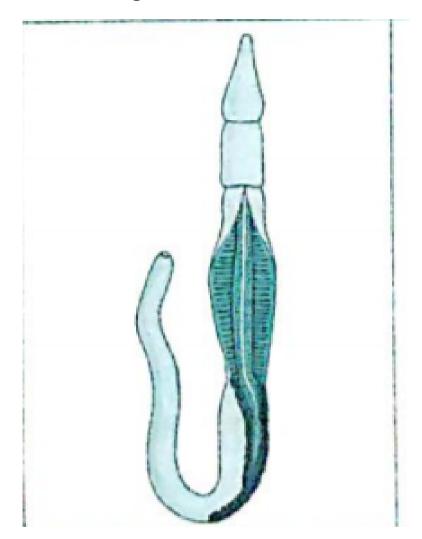




#### 130. Diagram-based questions:

Identify the animal given in the figure and

# label the figure:



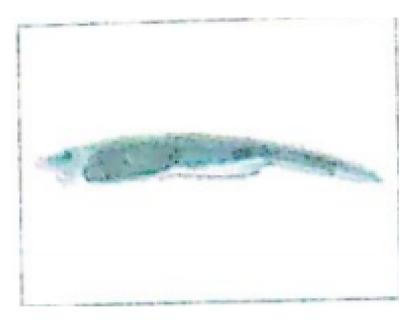


Identify the animal given in the figure and label the figure:



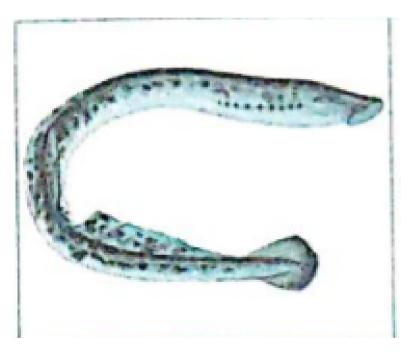


Identidy the animal given in the figure and lable the figure:



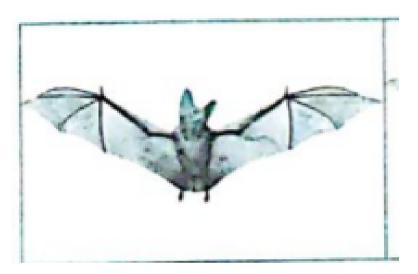


Identify the animal given in the figure and lable the figure:



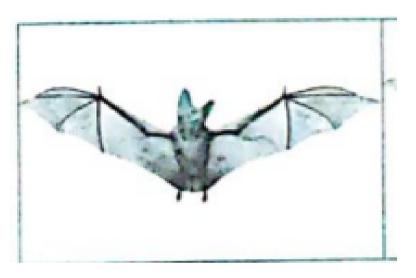


Identify the animal given in the figure and lable the figure:



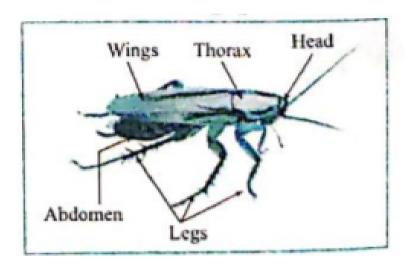


Identify the class of the animal shown in the figure and write any two characterstics.





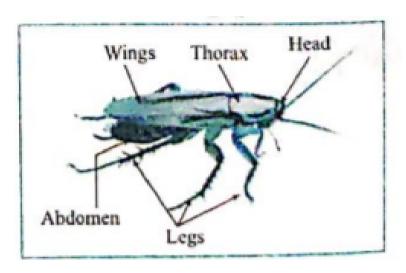
Observe the following diagram. Write the answer of the following questions:



To which phylum does the animal included in the diagram?



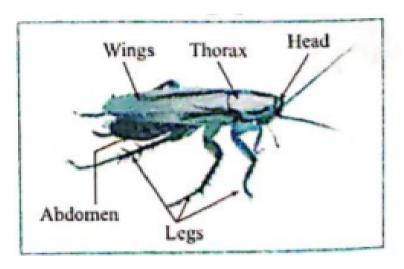
Observe the following diagram. Write the answer of the following questions:



What is the exoskeleton made up?



Observe the following diagram. Write the answer of the following questions:



What is symmetry?



Observe the figure and answer the following questions:





To which phylum these organisms belong?



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**140.** Diagram-based questions:

Observe the figure and answer the following

#### questions:





Name the substance with which their body is covered.



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## **141.** Diagram-based questions:

Observe the figure and answer the following questions:





Name their organs of locomotion.



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**142.** Diagram-based questions:

Name the locomotory organ of animal shown

in the given figure:





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## **143.** Diagram-based questions:

Observe the figures given below answer the given questions:





In which phylum are these animals included?



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#### 144. Diagram-based questions:

Observe the figures given below answer the given questions:





Which substances forms the outer layer of their exoskeleton?



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**145.** Diagram-based questions:

Observe the figures given below answer the given questions:





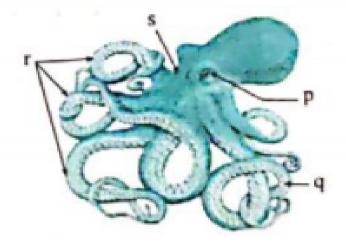
What are their locomotory organs?



Identify the phylum of the given animal and write any two characteristics of this phylum.

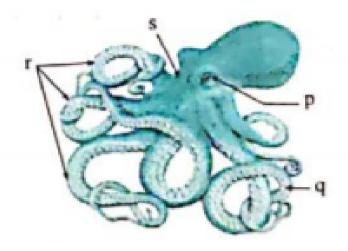


Identify the animal given here.





Write the phylum to which it belongs.

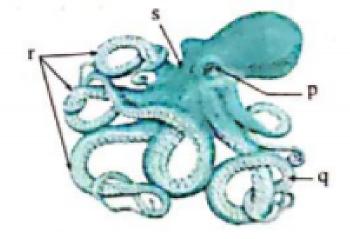




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149. Diagram-based questions:

Identify the pointed parts, p, q, r and s.

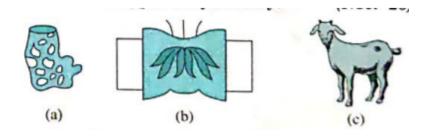




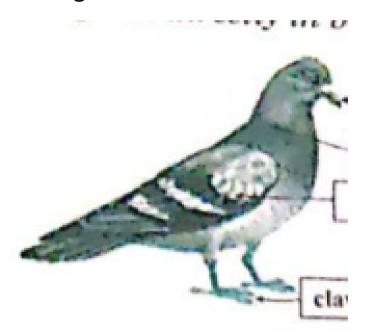
## **Watch Video Solution**

#### **150.** Diagram-based questions:

Identify and explain from the given figure different type of symmetry.



Label the figure.





#### Complete the following chart:

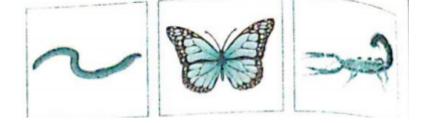
Type	Examples
(A) Pisces	Pomfret, Rohu
(B) Amphibians	Salamander, Toad
(C) Mammalians	Cat, Whale
(D) Reptilians	Crocodile, Snake



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## 153. Diagram-based questions:

Observe the following figur and answer the following:



Due to which common characterstic the animals shown in the figure belong to the same phylum?



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#### **154.** Diagram-based questions:

Observe the following figur and answer the following:







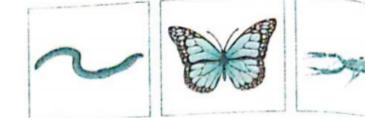
The exoskeleton of these animals is made up of which chemical?



**Watch Video Solution** 

**155.** Diagram-based questions:

Observe the following figur and answer the following:



Give another two examples of this phylum.



**Watch Video Solution** 

**156.** Complete the following charts:

Complete the chart by taking into

#### consideration the criteria for classification:

