



# **BIOLOGY**

**BOOKS - PEARSON IIT JEE**

**FOUNDATION**

**DIVERSITY IN LIVING WORLD-  
ANIMALS**

**Quick Recap**

1. Explain the formation of different systems from the germ layers in advanced vertebrates.



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2. Identify the following parasites and the phylum to which they belong.

It lives in the intestine of humans and causes vomiting.



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3. Identify the following parasites and the phylum to which they belong.

It invades the skin of humans and causes elephantiasis.



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4. Identify the following parasites and the phylum to which they belong.

It resides in the stomach of humans and causes itching anus and stomach ache.



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5. Organisms having both gonads (testes and ovary) are called hermaphrodites. State True or False.



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6. Explain the feeding mechanism in hydra.



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7. Write short note on feeding in tapeworm.



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8. Arthropods have mosaic vision. Give reason.



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9. Explain the different stages of metamorphosis in insects Insect (Butterfly).



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**10.** Distinguish between ectoparasites and endoparasites. Give examples for both.



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**11.** All vertebrates are chordates, but all chordates are not vertebrates. Comment on this statement.



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12. Amphibians have evolved from the fish-like ancestors. At the same time, they are the ancestors for reptiles. Justify this statement by giving features of amphibians which support this view.



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## Test Your Concepts

1. Cellular level of organization is found in \_\_\_\_\_phylum



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2. Triploblastic animals possess an extra layer called \_\_\_\_\_.



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3. The phylum characterized by the presence of a false coelom is \_\_\_\_\_.



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4. Notochord is converted to \_\_\_\_\_ in the adult stage.



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5. In invertebrates, the body temperature varies according to the external conditions. So they are called \_\_\_\_\_ animals.



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6. Bisexual animals bearing male and female sex organs are known as \_\_\_\_\_.



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7. The series of changes which occur during transition from egg to adult form is\_\_\_\_\_.



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8. The taxonomical unit exclusively used in the classification of animal kingdom is\_\_\_\_\_.



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9. The single large opening at the top in sponges is called\_\_\_\_\_.



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10. The only fresh water animal in phylum cnidaria is\_\_\_\_\_.



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11. In animals belonging to phylum Platyhelminthes, locomotory organelles are\_\_\_\_\_.



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12. The excretory organs in round worm are\_\_\_\_\_.



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13. The periodical shedding of exoskeleton in arthropods is called\_\_\_\_\_.



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14. Soft-bodied animals belong to phylum\_\_\_\_\_.



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15. A \_\_\_\_\_ is present on the dorsal side of the foot in snail.



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16. \_\_\_\_\_ are considered as invertebrate chordates.



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17. Food intake in starfish takes place with the help of \_\_\_\_\_.



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18. Amphioxus belongs to the phylum \_\_\_\_\_.



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19. The sponge which is generally gifted in marriages by Japanese is \_\_\_\_\_.



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20. The pathway of entering and coming out of water in sponges is known as \_\_\_\_\_.



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21. Coral animals secrete an exoskeleton, it is composed of\_\_\_\_\_.



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22. Type of respiration seen in parasitic helminthes\_\_\_\_\_.



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23. In tape worm body is made up of segments called\_\_\_\_\_.



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24. Metameric segmentation is seen in\_\_\_\_\_.



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25. Water vascular system is present in\_\_\_\_\_.



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26. Spiders and scorpions belong to \_\_\_\_\_ class under phylum Arthropoda.



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27. The worm which is known as filarial worm is \_\_\_\_\_.



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**28.** The class of vertebrates which has exclusively aquatic habitat is\_\_\_\_\_.



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**29.** The pigment cells present on the skin of amphibians are called\_\_\_\_\_.



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**30.** In birds, the alimentary canal ends in three chambered\_\_\_\_\_.



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**31.** The development of two sets of teeth during the life time found in mammals is called\_\_\_\_\_ dentition.



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**32.** The endoskeleton in vertebrates is made up of hard, living tissues such as \_\_\_\_\_ and \_\_\_\_\_.



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**33.** All the land vertebrates show \_\_\_\_\_ respiration.



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**34.** Swim bladder in fish is an organ for\_\_\_\_\_.



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**35.** Cartilagenous fish are grouped under\_\_\_\_\_.



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**36.** The exoskeleton of birds is made up of\_\_\_\_\_.



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**37.** When teeth are embedded in sockets, such condition is known as\_\_\_\_\_.



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**38.** The muscular layer separating thoracic and abdominal cavity in mammals is called \_\_\_\_\_.



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**39.** The pouch in which new born kangaroo is taken care is called \_\_\_\_\_.



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40. The respiratory pigment present in chordates is\_\_\_\_\_.



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41. In snakes, poison fangs are modified\_\_\_\_\_.



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42. Bones in birds are hollow and are said to be\_\_\_\_\_.



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**43.** In vertebrates, coelom is derived from which germ layer?

A. Ectoderm

B. Endoderm

C. Mesoderm

D. Both ectoderm and endoderm

**Answer: C**



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44. Identify the phylum associated with the presence of false coelom.

A. Platyhelminthes

B. Cnidaria

C. Annelida

D. Nematoda

**Answer: D**



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**45.** Snails belong to which phylum?

A. Annelida

B. Mollusca

C. Arthropoda

D. Echinodermata

**Answer: B**



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**46.** How many phyla are there under animal kingdom?

A. 8

B. 9

C. 10

D. 11

**Answer: C**



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47. Identify the phylum in which the notochord is retained in the adult stage.

A. Chordata

B. Craniata

C. Protochordata

D. Echinodermata

**Answer: C**



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**48.** Identify the features which correspond to phylum Platyhelminthes.

- A. Diploblastic and Acoelomate
- B. Triploblastic and Coelomate
- C. Diploblastic and Pseudocoelomate
- D. Triploblastic and Acoelomate

**Answer: D**



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**49.** Which of the following features are considered to be the primitive features in the evolutionary hierarchy?

(i) Internal fertilization

(ii) Coelom developed from mesoderm

(iii) Presence of mesoderm layer

(iv) Hermaphrodite nature.

A. (i) and (iv)

B. (ii) and (iv)

C. (i) and (iii)

D. (iii) and (iv)

**Answer: D**



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**50.** Identify the false statements among the following.

(i) They possess water vascular system

(ii) They possess parapodia

(iii) They show bilateral symmetry only during larval stage

(iv) They possess incomplete digestive tract

A. (i) and (iii)

B. (i) and (iv)

C. (iii) and (iv)

D. (i) and (iii)

**Answer: D**



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**51.** Identify the phylum without tissue level organization.

A. Cnidaria

B. Nematoda

C. Porifera

D. None of these

**Answer: C**



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**52.** Identify the stinging cells abundant in the tentacles of hydra.

A. Ctenidia

B. Cnidoblasts

C. Ostia

D. Ganglia

**Answer: B**



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**53.** The larval form of coelenterates is called by which of the following names?

A. Medusa

B. Polyp

C. Zooid

D. Planula

**Answer: D**



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**54.** Which of the following invertebrates shows sexual dimorphism?

A. Ascaris

B. Taenia

C. Starfish

D. All of these

**Answer: A**



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**55.** Jointed legs is the characteristic feature of which phylum?

A. Arthropoda

B. Annelida

C. Nematoda

D. Echinodermata

**Answer: A**



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**56.** The common bath sponge is \_\_\_\_\_.

A. Sycon



B. Euplectella

C. Spongilla

D. Euspongia

**Answer: D**



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**57.** Tentacles of hydra help in \_\_\_\_\_.

A. locomotion

B. food capturing

C. locomotion and food capturing

D. reproduction

**Answer: C**



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**58.** Physalia is commonly known as:

A. sea fan

B. sea pen

C. jelly fish

D. Portuguese man o war

**Answer: D**



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**59.** Round worms differ from flat worms in having\_\_\_\_\_.

A. flame cells

B. pseudocoel

C. segmented body

D. flagella

**Answer: B**



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**60.** Identify the locomotary organs in annelida.

A. Tube feet

B. Setae

C. Pseudopodia

D. Flagella

**Answer: B**



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**61.** Blue-coloured pigment present in the blood of molluscs is known as:

- A. hemocyanin
- B. hemerythrin
- C. hemoglobin
- D. phytochromes

**Answer: A**



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**62.** The body cavity of arthropods is called:

A. haemocoel

B. pseudocoel

C. coelom

D. exterior

**Answer: A**



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**63.** Identify the phylum in which symmetry is radial in adults but bilateral in larvae.

A. Chordata

B. Craniata

C. Protochordata

D. Echinodermata

**Answer: D**



64. Identify the phylum/phyla in which some animals show parasitism.

- A. Nematoda
- B. Platyhelminths
- C. Annelida
- D. All of these

**Answer: D**





**65.** Identify the wrongly matched pair among the following.

A. Excretory matter ammonia released directly into water-Echinodermata

B. Book lungs as respiratory organs-Arthropoda

C. Alternation of generations—Cnidaria

D. Skeleton made up of siliceous or calcareous spicules-Mollusca

**Answer: D**



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**66.** Identify the phylum in which endocrine system appeared for the first time.

A. Arthropoda

B. Annelida

C. Mollusca

D. Protochordata

**Answer: A**



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**67.** Which of the following animals possesses blood with haemoglobin in plasma?

- (i) Earthworm      (ii) Balanoglossos  
(iii) Snail      (iv) Butterfly .

A. (i), and (iv)

B. (ii) and (iii)

C. (i), (ii) and (iv)

D. (ii) and (iv)

**Answer: A**



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**68.** Which class of animals possess two chambered heart?

A. Pisces

B. Amphibians

C. Reptiles

D. Both (a) and (b)

**Answer: A**



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**69.** The animals belonging to which class of vertebrates generally lead an arboreal life?

A. Aves

B. Reptiles

C. Mammals

D. All of these

**Answer: C**



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**70.** Name the special pouch in which a female kola bear protects its young one after birth.

A. Womb

B. Uterus

C. Placenta

D. Marsupium

**Answer: D**



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**71. Identify the glands present in birds.**

- A. Preen gland
- B. Sebaceous gland
- C. Sweat gland
- D. Mammary gland

**Answer: A**



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**72.** Urinary bladder is absent in which of the following animals?

A. Duck billed platypus

B. Snake

C. Peacock

D. Kangaroo



**Answer: C**



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**73.** Identify an organism in which brachial respiration takes place

A. Chameleon

B. Peacock

C. Tortoise

D. Shark

**Answer: D**



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**74.** An animal which contain three-chambered heart is \_\_\_\_\_.

A. man

B. fish

C. rabbit

D. frog

**Answer: D**



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**75.** Diaphragm in mammals plays a major role in\_\_\_\_\_.

A. digestion

B. excretion

C. respiration

D. co-ordination

**Answer: C**



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**76.** Operculum is a bony plate covering gills of\_\_\_\_\_.

- A. bony fishes
- B. cartilaginous fishes
- C. all fishes
- D. tadpole

**Answer: A**



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**77. Identify the glands present in birds.**

- A. Preen gland
- B. Sebaceous gland
- C. Sweat gland
- D. Mammary gland

**Answer: A**



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78. Which of the following is not the characteristic feature of pisces?

- A. Presence of streamlined body
- B. Presence of lateral line sense organ
- C. Presence of fins
- D. Pentadactyl

**Answer: D**



79. Identify the fish which is ureotelic.

A. Shark

B. Catfish

C. Ray

D. Petromyzon

**Answer: D**



**80.** Which of the following animals can survive both in land and water habitats?

A. Salamanders

B. Alligators

C. Crocodiles

D. Penguins

**Answer: A**



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**81.** Which of the following mammals possess few characteristics of reptiles?

A. Kangaroo

B. Spiny ant eater

C. Kola bear

D. Whale

**Answer: B**



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**82.** Identify the sound producing organ in mammals.

A. Pharynx

B. Syrinx

C. Larynx

D. Adam's apple

**Answer: C**



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**83.** Presence of biconcave, circular and anucleated RBC is the characteristic feature of which animal?

- A. Ostrich
- B. Whale
- C. Crocodile
- D. All of these

**Answer: B**



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**84.** Which oviparous animal feeds its young one with mother's milk after hatching?

A. Kangaroo

B. Bat

C. Penguin

D. Duck billed platypus

**Answer: D**



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**85.** Mammary glands in mammals are modified into:

- A. sweat glands
- B. sebaceous glands
- C. lachrymal glands
- D. preen glands

**Answer: A**



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**86.** Mammal which contains nucleated red blood cell is:

A. man

B. camel

C. monkey

D. rabbit

**Answer: C**



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**87.** Ventricle of frog contains:

- A. oxygenated blood
- B. deoxygenated blood
- C. no blood
- D. mixed blood

**Answer: D**



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**88.** Jaws are absent in:

- (i) Balanoglossus      (ii) Myxine  
(iii) vertebrates      (iv) Petromyzon .

A. (i), (iv)

B. (ii) , (iv)

C. (ii),(iii)

D. (iii) , (iv)

**Answer: B**



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**89.** Identify poikilotherms.

(i) Elephants      (ii) Frogs

(iii) Sharks      (iv) Whales .

A. (i), (ii)

B. (ii) , (iv)

C. (ii),(iii)

D. (iii) , (iv)

**Answer: C**



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90. Exoskeleton is absent in.

(i) fishes      (ii) frog

(iii) rabbit      (iv) food .



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Column 1

Column 2

A. Radial

(i) Pila

B. Bilateral

(ii) Nereis

C. Asymmetrical

(iii) Helminthes

D. True coelomates

(iv) Annelida

E. Parapodia

(v) Coelenterata

91.



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Column 1	Column 2
A. Jointed appendages	(i) Pigeon
B. Pneumatic bones	(ii) Tapeworm
C. Circular mouth	(iii) <i>Balanoglossus</i>
D. Flame cells	(iv) Grasshopper
E. Proboscis	(v) <i>Myxine</i>

92.



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Column 1	Column 2
A. Aminotetic	(i) Frog
B. Ureotelic	(ii) <i>Ascaris</i>
C. Uricotetic	(iii) Fishes
D. Acoelomata	(iv) Birds
E. Pseudocoelomata	(v) Tapeworm

93.



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**Column 1****Column 2**

A. Hemichordata

(i) Asymmetric

B. Pila

(ii) Pentaradial Symmetry

C. Sea anemone

(iii) Spherical Symmetry

D. Starfish

(iv) Bilateral Symmetry

E. Sea urchin

(v) Radial Symmetry

94.

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**Column 1****Column 2**

A. Ostia

(i) Star fish

B. shell

(ii) Leech

C. Suckers

(iii) Sycon

D. Jointed appendages

(iv) Oysters

E. Tube feet

(v) Spiders

95.

[Watch Video Solution](#)**Column 1****Column 2**

A. Archeopteryx

(i) Electric organ

B. Cyclostoma

(ii) Fossil birds

C. Mammals

(iii) Dual habitat

D. Torpedo

(iv) Jawless vertebrates

E. Amphibia

(v) Mammary gland

96.

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**Column 1****Column 2**

A. Toad

(i) Aves

B. Rohu

(ii) Reptiles

C. Ostrich

(iii) Amphibian

D. Rodents

(iv) Pisces

E. Tortoise

(v) Mammal

97.

[Watch Video Solution](#)**Column 1****Column 2**

A. Prototheria

(i) Rays and Skates

B. Metatheria

(ii) Turtles

C. Chelonia

(iii) *Balanoglossus*

D. Hemichordata

(iv) Marsupials

E. Chondrichthyes

(v) *Echidna*

98.



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## Mastering The Concepts Knowledge And Understanding

1. Define the following :

Bilateral symmetry.



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2. Define the following :

Germ layers .



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**3. Define the following :**

Notochord.



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**4. Distinguish between the following.**

Invertebrates and vertebrates



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5. How is complete digestive tract different from incomplete digestive tract?



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6. What is meant by extracellular digestion?  
How is it different from intracellular digestion?



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7. Give the taxonomic hierarchy of animals.



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8. What is the function of notochord?



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9. Give the difference between open and closed circulation.



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**10.** Define the following terms of giving examples.

Oviparous



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**11.** Define the following terms of giving examples.

Viviparous



**Watch Video Solution**

**12.** Define the following terms of giving examples.

Radial symmetry



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**13.** Define the following terms of giving examples.

Bilateral symmetry



**Watch Video Solution**

**14.** Define the following terms of giving examples.

Homeotherms



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**15.** Define the following terms of giving examples.

Poikilotherms



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**16.** Define the following terms of giving examples.

Diploblastic



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**17.** Mention the characteristics taken as basis for the classification of animals.



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**18.** Give the characteristic features of hemichordata.



**Watch Video Solution**

**19.** Distinguish between diploblastic animals and triploblastic animals.



**Watch Video Solution**

**20.** What is meant by a true coelom? On what basis coelomates are further categorized?



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**21.** Define sexual dimorphism. Give an example of an invertebrate phylum which shows this feature.



**Watch Video Solution**



**22.** Differentiate between oviparous and viviparous animals.



**Watch Video Solution**

**23.** State two differences between internal and external fertilization.



**Watch Video Solution**

**24.** Give the difference between .

Direct and Indirect development



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**25.** How do the following terms originate?

Nematoda



**Watch Video Solution**

**26.** How do the following terms originate?

Echinodermata



**Watch Video Solution**

**27.** How do the following terms originate?

Porifera.



**Watch Video Solution**

**28.** Write short notes on the following.

Ecdysis



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**29.** Write short notes on the following.

Polymorphism



**Watch Video Solution**

**30.** What is meant by osmoregulation?



**Watch Video Solution**

**31.** List out the characteristic features of protochordates.



**Watch Video Solution**

**32.** Distinguish between Polyp and Medusa.



**Watch Video Solution**

**33.** Sponges are considered as pore bearers.

Discuss.



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**34.** Explain the following terms.

Tetrapodus



**Watch Video Solution**

**35.** Explain the following terms.

Pentadactyl



**Watch Video Solution**

**36.** Explain the following terms.

Nocturnal



**Watch Video Solution**

**37.** Explain the following terms.

Arboreal habitat



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**38.** What is meant by dentition? Explain the following terms with respect to dentition.

(a) Thecodont (b) Heterodont

(c) Diphyodont .



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**39.** Mention the differences between cartilaginous and bony fishes.



**Watch Video Solution**

**40.** Give classification for the following.

A. Parrot

B. Cockroach



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**41.** What is meant by a streamlined body?

Which classes of vertebrates possess such body morphology? Justify that.



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**42.** Which structural features help the amphibians to get adapted to both terrestrial and aquatic habitats?



**Watch Video Solution**

**43.** How did the following terms originate?

Amphibia



**Watch Video Solution**

**44.** How did the following terms originate?

Reptilia



**Watch Video Solution**

**45.** How did the following terms originate?

Mammalia



**Watch Video Solution**

**46.** How would you identify a fish as cartilaginous or bony on observing its head region?



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**47.** Mention few flight adaptations in birds.



**Watch Video Solution**

**48.** How is pectin useful in birds?



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**Mastering The Concepts Application And  
Analysis**

1. Presence of coelom has lot of significance in higher organisms. How does this feature help them?



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2. How is ovoviviparity different from oviparity and viviparity?



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3. Endoparasites do not possess a digestive tract.



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4. Explain the feeding process in hydra.



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5. The animals belonging to lower phyla of invertebrates like tapeworm, earthworm etc.,

are hermaphrodite or bisexual.

Does this result in self fertilization? Justify.



**View Text Solution**

6. Arthropods have mosaic vision. Give reason.



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7. Locusts can survive in extreme climatic conditions. Give reason.



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**8.** Blood is usually blue in colour in molluscs.

Give reason.



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**9.** Arthropods constitute the largest group of the animal kingdom. Give reasons.



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**10.** Balanoglossus can be considered to be a link between nonchordates and chordates.

Comment: on this statement



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**11.** Justify the position of Echidna in mammals though it lays eggs.



**Watch Video Solution**

**12.** Mammals show heterodont dentition. Give reason.



**Watch Video Solution**

**13.** The viviparous animals can produce lesser number of young ones per litter when compared to the oviparous young ones. Give reason.



**Watch Video Solution**

**14.** Amphibians are considered to show a transition from fishes to reptiles. Justify on the basis of their characteristic features.



**View Text Solution**

**15.** Yolk sac in the embryo of human female is non functional. Give reason.



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**16.** Cartilaginous fishes swim continuously without any interval. Give reason.



**Watch Video Solution**

**17.** Some vertebrates show hibernation in winter. Birds and mammals do not show this feature. Give reason.



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**18.** Higher animals like mammals do not have a specific mating season like birds. Give reason.



**Watch Video Solution**

**19.** Identify the odd one and justify.

Psittacula, Ostrich, Kiwi, Tinamus.



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**20.** Identify the odd one and justify.

Sweat gland, Subcutaneous gland, sebaceous gland,  
Mammary gland.



**Watch Video Solution**

**21.** Identify the odd one and justify.

Glucose, Urea, Uric acid, Ammonia.



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**22.** Amphibians are considered as true voice producers. Justify.



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**23.** Why are whales not considered to be fishes?



**Watch Video Solution**



**24.** Blood does not clot while leach is sucking blood.



**Watch Video Solution**

**25.** Give reason why oviparous animals lay more eggs.



**Watch Video Solution**

**26.** Whale, shark and crocodile are all aquatic organisms. But, they have wide differences in their characteristic features. Draw a comparison of some features and justify.



**View Text Solution**

**27.** Which classes of phylum chordata are associated with organisms with streamlined bodies? What purpose does such body structure serve?





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28. Why do frogs croak during rainy season?



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## Mastering The Concepts Assertions And Reasons

1. Assertion (A): Organisms belonging to cnidaria do not possess coelom.

Reason (R): Cnidarians are diploblastic animals.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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2. Assertion (A): In vertebrates, coelom is lined by peritoneum.

Reason (R): In vertebrates, coelom originates from endoderm.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**3. Assertion (A):** All viviparous animals show indirect development.

**Reason (R):** In all oviparous animals, development involves larval stage.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**4. Assertion (A):** The endoskeleton of animals is totally composed of living tissues.

Reason (R): Bone and cartilage are living tissues.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**



5. Assertion (A): Animals belonging to phylum Porifera are often called sponges.

Reason(R): The animals have porous bodies.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**6. Assertion (A):** Coelenterates may form corals.

**Reason (R):** Coelenterates possess hard calcareous exoskeleton.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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7. Assertion (A): Tapeworm does not possess a digestive tract .

Reason (R): Tapeworm is an ectoparasite.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**8. Assertion (A):** The blood of annelids is red in colour .

**Reason (R):** The blood of annelids possess haemoglobin in red blood cells.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**9. Assertion (A):** All chordates possess open circulatory system.

**Reason (R):** Balanoglossus possesses open blood vascular system.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**10. Assertion (A):** Mixed blood circulates in the body of a fish.

Reason (R): Fishes are characterised by the presence of two chambered heart.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**11. Assertion (A):** The excretory product of lizards is uric acid.

**Reason (R):** Lizards show terrestrial habitat.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**12.** Assertion (A): Placental mammals are considered as true mammals.

Reason (R): Only placental mammals feed their young ones with mother's milk.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**13.** Assertion (A): In Kangaroo, the development is partially direct.

Reason (R): Kangaroo is ovoviviparous animal.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**14.** Assertion (A): Animals belonging to phylum Porifera are often called sponges.

Reason(R): The animals have porous bodies.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**15.** Assertion (A): Crocodile has a four chambered heart.

Reason (R): Crocodile is a reptile.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**16.** Assertion (A): Bat nourishes its young one in mother's womb by means of placenta.

Reason (R): Bat is a bird with few features of mammals.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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17. Assertion (A): Shark belongs to cartilaginous fishes.

Reason (R): Gill slits are not covered by opericulum.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**18.** Assertion (A): Fish are not considered tetrapods.

Reason (R): They have paired fins.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**19.** Assertion (A): Fish are not considered tetrapods.

Reason (R): They have paired fins.

- A. Both A and R are true and R is the correct explanation for A.
- B. Both A and R are true but R is not the correct explanation for A.
- C. A is true and R is false.
- D. A is false and R is true.

**Answer:**



**View Text Solution**

**20.** Assertion (A): Hibernation during winter and aestivation during summer is seen in frogs.

Reason (R): Frogs are poikilotherms.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**21. Assertion (A):** Ichthyophis lives in borrows.

**Reason (R):** It is known as blind snake.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**22.** Assertion (A): Lizards can regenerate their lost tail.

Reason (R): Lizards have limbs

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**



**23.** Assertion (A): Pectin is present in the eye of bird.

Reason (R): It maintains shape of the eye.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



**Watch Video Solution**

**24. Assertion (A):** Larynx of mammals helps in producing sound.

**Reason (R):** It contains vocal sacs.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**25.** Assertion (A): Prototherians are egg laying mammals.

Reason (R): They act as connecting link between reptiles and mammals.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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**26.** Assertion (A): The amphibians also possess lateral line sense organ particularly in larval stage.

Reason (R): Amphibians undergo metamorphosis.

A. Both A and R are true and R is the correct explanation for A.

B. Both A and R are true but R is not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer:**



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## Assessment Tests

1. The liver of shark is a rich source of vitamin A.



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2. Snakes have four-chambered heart.



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3. Ostrich is considered to be the smallest bird.



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4. Ichthyophis is a blind limbless mammal.



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5. The largest venomous snake in Ophiophagus hannah (King Cobra).



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6. Preen gland or uropygial gland is helpful in lubricating feathers in birds.



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7. When two sets of teeth are formed during lifetime then the organism is considered as diphyodont.



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8. Nematodes lack lateral appendages



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9. Spicules are present in coelenterata.



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**10.** Earthworm is an sanguivorous animal.



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**11.** Larvae are called caterpillar in silk moth which produces silk.



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**12.** Water vascular system is present in sponges.



**Watch Video Solution**

**13.** *Pinctada vulgaris* belonging to mollusca produce! pearls.



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14. Hirudin is an anticoagulant extracted from earthworm.



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15. Sea Urchins are used by Japanese as food.



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16. Pulmonary : lungs :: \_\_\_\_\_ : Skin.



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17. Draco : Flying lizard :: \_\_\_\_\_ : flying fish.



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18. Frog : tetrapod :: Birds : \_\_\_\_\_



[Watch Video Solution](#)

19. \_\_\_\_\_ : birds :: Larynx : Mammals.



[Watch Video Solution](#)

20. Platypus : Prototheria :: \_\_\_\_\_ : metatheria.



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21. Vanadium : Vanadocytes :: \_\_\_\_\_ :

Hemoglobin.



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22. Fishes : : \_\_\_\_\_ : Birds : feathers



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23. Dicots: reticulate venation : : Monocots

: \_\_\_\_\_.



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24. Bivalve : mollusca :: Sea urchins : \_\_\_\_\_.



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25. Physalia : \_\_\_\_\_ :: Sycon: porifera.



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26. Struthio camelus : \_\_\_\_\_ :: Ichthyophis :  
amphibian.



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27. Hydra : solitary form :: Corals : \_\_\_\_\_



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**28.** Tortise, Turtle, Crocodile, Frog.



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**29.** Shark, Whale, Dog fish, Rohu.



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**30.** Write any two points of difference between flat worms and round worms.



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31. Complete the following table .

Common name	Scientific name
	<i>Mangifera indica</i>
Rose	
Tiger	
Tulsi	
Lion	
	<i>Triticum aestivum</i>
Peacock	
National flower	



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**32.** Distinguish between oviparous and viviparous animals.



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

Fish that breathes by lungs.



**Watch Video Solution**

**34.** Give one example for each of the following.

Aquatic mammals



**Watch Video Solution**

**35.** Give one example for each of the following.

Connecting link between reptiles and birds.



**Watch Video Solution**

**36.** Give one example for each of the following.

Animals which live underground or in burrows.



**Watch Video Solution**

**37.** Give one example for each of the following.

Reptile having four chambered heart.



**Watch Video Solution**

**38.** Give one example for each of the following.

Vertebrates bearing pneumatic bones.



**Watch Video Solution**

**39.** Give one example for each of the following.

Egg-laying mammals.



**Watch Video Solution**

**40.** Give one example for each of the following.

Voice box in birds.



**Watch Video Solution**

**41.** Give one example for each of the following.

Fishes in which opericulum is seen.



**Watch Video Solution**

**42.** Give one example for each of the following.

Egg laying blind amphibian.



**Watch Video Solution**

**43.** Give one example for each of the following.

Subclass of Pisces which includes jawless fish.



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**44.** Give one example for each of the following.

Animals that bear four limbs.



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