



BIOLOGY

BOOKS - NCERT BIOLOGY (HINGLISH)

DIVERSITY IN LIVING ORGANISMS

Diversity In Living Organisms

1. Find out incorrect sentence

A. Protista includes unicellular eukaryotic organisms

B. Whittaker considered cell structure, mode and source of nutrition for classifying the organisms in five kingdoms

C. Both Monera and Protista may be autotrophic and heterotrophic

D. Monerans have well defined nucleus

Answer: D



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2. Which among the following has specialised tissue for conduction of water?

- A. Thallophyta
- B. Bryophyta
- C. Pteridophyta
- D. Gymnosperms

Answer: C and D



3. Which among the following produce seeds?

- A. Thallophyta
- B. Bryophyta
- C. Pteridophyta
- D. Gymnosperms

Answer: D



4. Which one is a true fish?

A. Jellyfish

B. Starfish

C. Dogfish

D. Silverfish

Answer: C



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5. Which among the following is exclusively marine?

A. Porifera

B. Echinodermata

C. Mollusca

D. Pisces

Answer: B



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6. Which among the following have open circulatory system?

(i) Arthropoda (ii) Mollusca

(iii) Annelida (iv) Coelenterata

A. (i) and (ii)

B. (iii) and (iv)

C. (i) and (iii)

D. (ii) and (iv)

Answer: A



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7. In which group of animals, coelom is filled with blood ?

A. Arthropoda

B. Annelida

C. Nematoda

D. Echinodermata

Answer: A



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8. Elephantiasis is caused by

A. Wuchereria

B. Pinworm

C. Planarians

D. Liver flukes

Answer: A



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9. Which one is the most striking or (common) character of the vertebrates?

- A. Presence of notochord
- B. Presence of triploblastic condition
- C. Presence of gill pouches
- D. Presence of coelom

Answer: A



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10. Which among the following have scales?

(i) Amphibians (ii) Pisces

(iii) Reptiles (iv) Mammals

A. (i) and (iii)

B. (iii) and (iv)

C. (ii) and (iii)

D. (i) and (ii)

Answer: C



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11. Find out the false statement

A. Aves are cold blooded, egg laying and

have four chambered heart

B. Aves have feather covered body, fore

limbs are modified as wing and breathe

through lungs

C. Most of the mammals are viviparous

D. Fishes, amphibians and reptiles are

oviparous

Answer: A



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12. Pteridophyta do not have

A. root

B. stem

C. flowers

D. leaves

Answer: C



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13. Identify a member of Porifera

A. Spongilla

B. Euglena

C. Penicillium

D. Hydra

Answer: A



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14. Which is not an aquatic animal?

A. Hydra

B. Jelly fish

C. Corals

D. Filaria

Answer: D



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15. Amphibians do not have the following

A. Three chambered heart

B. Gills or lungs

C. Scales

D. Mucous glands

Answer: C



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16. Organisms without nucleus and cell organelles belong to

(i) fungi (ii) protista

(iii) cyanobacteria (iv) archaebacteria

A. (i) and (ii)

B. (iii) and (iv)

C. (i) and (iv)

D. (ii) and (iii)

Answer: B



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17. Which of the following is not a criterion for classification of living organisms?

- A. Body design of the organism
- B. Ability to produce one's own food
- C. Membrane bound nucleus and cell organelles
- D. Height of the plant

Answer: D



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18. The feature that is not a characteristic of protochordata?

- A. Presence of notochord
- B. Bilateral symmetry and coelom
- C. Jointed legs
- D. Presence of circulatory system

Answer: C



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19. The locomotory organs of Echinodermata are

- A. tube feet
- B. muscular feet
- C. Jointed legs
- D. parapodia

Answer: A



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20. Corals are

A. poriferans attached to some solid support

B. cnidarians, that are solitary living

C. poriferans present at the sea bed

D. cnidarians that live in colonies

Answer: D



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21. Who introduced the system of scientific nomenclature of organisms

A. Robert Whittaker

B. Carolus Linnaeus

C. Robert Hooke

D. Ernst Haeckel

Answer: B



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22. Two chambered heart occurs in

A. crocodiles

B. fish

C. aves

D. amphibians

Answer: B



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23. Skeleton is made entirely of cartilage in

A. sharks

B. tuna

C. rohu

D. None of these

Answer: A



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24. One of the following is not an Annelida

A. Nereis

B. Earthworm

C. Leech

D. Sea urchins

Answer: D



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25. The book *systema naturae* was written by

A. Linnaeus

B. Haeckel

C. Whittaker

D. Robert Brown

Answer: A



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26. Carl von Linnaeus was involved with which branch of science?

A. Morphology

B. Taxonomy

C. Physiology

D. Medicine

Answer: B



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27. Real organs are absent in

A. Mollusca

B. Coelenterata

C. Arthropoda

D. Echinodermata

Answer: B



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28. Hard calcium carbonate structures are used as skeleton by

A. Echinodermata

B. Protochordata

C. Arthropoda

D. Nematoda

Answer: A



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29. Differentiation in segmental fashion occurs
in

A. Leech

B. Starfish

C. Snails

D. Ascaris

Answer: A



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30. In a taxonomic hierarchy, family is interpolated between

A. Class and Order

B. Order and Genus

C. Genus and Species

D. Division and Class

Answer: B



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31. Five-kingdom classification was proposed by

A. Morgan

B. R H Whittaker

C. Linnaeus

D. Haeckel

Answer: B



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32. Well defined nucleus is absent in

A. blue-green algae

B. diatoms

C. algae

D. yeast

Answer: A



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33. Who wrote the "Origin of Species"

A. Linnaeus

B. Darwin

C. Haeckel

D. Whittaker

Answer: B



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34. Meena and Hari observed an animal in their garden. Hari called it an insect while Meena said it was an earthworm. Choose the character from the following which confirms that it is an insect.

- A. Bilateral symmetrical body
- B. Body with jointed legs
- C. Cylindrical body

D. Body with little segmentation

Answer: B



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35. Write true (T) or false (F).

(a) Whittaker proposed five kingdom classification.

(b) Monera is divided into archaebacteria and eubacteria.

(c) Starting from class species comes before

the genus.

(d) Anabaena belongs to the kingdom-Monera.

(e) Blue green algae belongs to the kingdom-Protista.

(f) All prokaryotes are classified under Monera.



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36. Match items of column I with items of column II.



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37. Match items of column I with items of column II.



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38. Endoskeleton of fishes are made up of cartilage and bone. Classify the following fishes as cartilaginous or bony : Torpedo, sting ray, Dog fish, Rohu, Angler fish, Exocoetus.



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39. Classify The following based on number of chambers in their heart. Rohu, Scoliodon, Frog, Salamander, Flying lizard , King Cobra, Crocodile, Ostrich, Pigeon, Bat, Whale.



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40.

Classify Rohu, Scoliodon, flying lizard, king cobra, frog, salamander, ostrich, pigeon, bat, crocodile and whale into the

cold blooded/warm blooded animals.

Cold blooded creatures take on the temperature of their surroundings. They are hot when their environment is hot and cold when their environment is cold.

In hot environments, cold-blooded animals can have blood that is much warmer than warm-blooded animals.

Cold-blooded animals are much more active in warm environments and are very sluggish in cold environments. This is because their muscle activity depends on chemical reactions which run quickly when it is hot and slowly when it is cold.

A cold-blooded animal can convert much more of its food into body mass compared with a warm-blooded animal.

e.g., Rohu, flying lizard.

Warm blooded Warm-blooded creatures,

like mammals and birds, try to keep their bodies at a constant temperature. They do this by generating their own heat when they are in a cooler environment, and by cooling themselves when they are in a hotter environment. To generate heat, warm-blooded animals convert the food that they eat into energy. They have to eat a lot of food, compared with cold-blooded animals, to maintain a constant body temperature.

Only a small of the food that a warm-blood animal eats is converted into body mass. The rest is used to fuel a constant body temperature.

e.g., Scoliodon, ostrich, pigeon, bat and whale.



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41. Name two egg laying mammals.



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42. Give examples for the following

(a) Bilateral, dorsiventral symmetry is found in

..... .

(b) Worms causing disease elephantiasis is

.

(c) Open circulatory system is found in

Where coelomic cavity is filled with blood

(hemolymph).

(d) are known to have pseudocoelom.



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43. Label a,b,c and d. Given in figure. Give the function of (b)



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44. Fill in the boxes given in figure with appropriate characteristics/plant group (s).



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45. Write names of few thallophytes. Draw a well labelled diagram of Spirogyra.



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46. Thallophyta, bryophyta and pteridophyta are called as 'cryptogams'. Gymnosperms and angiosperms are called as 'phanerogams'. Discuss why? Draw one example of gymnosperm.



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47. Define the terms and give one example of each

(a) Bilateral symmetry

(b) Coelom

(c) Triploblastic



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48. You are given leech, Nereis, Scolopendra, prawn and scorpion, and all have segmented body organisation. Will you classify them in one group? If no, give the important characters based on which you will separate these organisms into different groups.



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49. Which organism is more complex and evolved among bacteria, mushroom and mango tree? Give reasons.



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50. Differentiation between flying lizard and bird. Draw the diagram.



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51. List out some common features in cat, rat and bat.



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52. Why do we keep both snake and turtle in the same class?



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Short Answer Type Questions

1. Fill in the blanks.

(a) Fungi shows Mode of nutrition.

(b) Cell wall of fungi is made up of

(c) Association between blue green algae and fungi is called as

(d) Chemical nature of chitin is

(e) has smallest number of organisms with maximum number of similar characters.

(f) Plants without well differentiated stem, root and leaf are kept in

(g) are called as amphibians of the plant kingdom.



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2. You are provided with the seeds of gram, wheat, rice, pumpkin, maize and pea. Classify them whether they are monocot or dicot.



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3. Classify the following organisms based on the absence/presence of true coelom, (i.e.,

acoelomate, pseudocoelomate and coelomate)



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4. Fill in the blanks

(a) Five kingdom classification of living organisms is given by

(b) Basic smallest unit of classification is

(c) Prokaryotes are grouped in kingdom

(d) Paramecium is a Protista because of its

.

(e) Fungi do not contain

(f) A fungus..... can be seen without microscope.

(g) Common fungi used in preparing the bread is

(h) Algae and fungi form symbiotic association called

(a) Whittaker (b) Species (c) Monera (d) Single cell

(e) Chlorophyll (f) Mycelium (g) Moulds (h) Lichen



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5. Give True (T) and False (F)

(a) Gymnosperms differ from angiosperms in having covered seed.

(b) Non-flowering plants are called cryptogamae.

(c) Bryophytes have conducting tissue.

(d) Funaria is a moss.

(e) compound leaves are found in many ferns.

(f) Seeds contain embryo.



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