

# Chapter - 7 Diversity in Living Organisms

# **Multiple Choice Questions**

- Q1. 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: Option d)

## Monerans have well defined nucleus

Members of Kingdom Monera are prokaryotic organisms without a well- defined nucleus and cell organelles. For example: bacteria, cyanobacteria (blue green algae) etc.

## Q2. Which among the following have specialized tissue for conduction of water?

- (i) Thallophyta
- (ii) Bryophyta
- (iii) Pteridophyta
- (iv) Gymnosperms
- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (iii) and (iv)
- (d) (i) and (iv)

## Answer: Option c) (iii) Pteridophyta (iv) Gymnosperms

In Kingdom Plantae, vascular tissues help in conduction of water and minerals (xylem) and transfer of food (phloem) are in the groups Pteridophyte, Gymnospermae and Angiospermae.



The groups Thallophyte and Bryophyta do not have vascular tissues for the conduction of water, minerals and food.

## Q3. Which among the following produce seeds?

- (a) Thallophyta
- (b) Bryophyta
- (c) Pteridophyta
- (d) Gymnosperms

#### Answer: Option d) Gymnosperms

Gymnosperms are the group of plants with naked seeds, and are perennial, evergreen and woody. Examples are Pinus, Cycas, Cedrus etc. Thallophyta, Bryophyta and Pteridophyte do not bear seeds.

#### Q4. Which one is a true fish?

- (a) Jelly fish
- (b) Star fish
- (c) Dog fish
- (d) Silver fish

## Answer: Option c) Dog fish

Dog fish (Scoliodon) is fish that belongs to Class Pisces. Jelly fish (Aurelia), star fish (Asterias) and silver fish (Lepisma) are phyla Coelenterate, Echinodermata and Arthropoda respectively.

## Q5. Which among the following is exclusively marine?

- (a) Porifera
- (b) Echinodermata
- (c) Mollusca
- (d) Pisces

#### Answer: Option b) Echinodermata



Phylum Echinodermata (the spiny skinned animals) are marine.

Phylum Porifera are marine, rarely fresh water (e.g., Spongilla).

Phylum Mollusca are marine but occur in fresh water (e.g., Unio) and in damp soil (e.g., some snails and slugs).

Class Pisces are both marine and fresh water.

#### Q6. Which among the circulatory system?

- (i) Arthropoda
- (ii) Mollusca
- (iii) Annelida
- (iv) Coelenterate
- (a) (i) and (ii)
- (b) (iii) and (iv)
- (c) (i) and (iii)
- (d) (ii) and (iv)

#### Answer: Option a)

(a) In open circulatory system, blood flows in open spaces and not in blood vessels. Examples-Arthropoda and Mollusca (except cuttle fish).

(b) In closed circulatory system, blood is in blood vessels and not in direct contact of body cells. Examples- Annelida and Chordata.

Blood is not present in the phyla Porifera, Coelenterate, Ctenophora, Platyhelminthes and Aschelminth's.

#### Q7. In which group of animals, coelom is filled with blood?

- (a) Arthropoda
- (b) Annelida
- (c) Nematoda

# (d) Echinodermata

# Answer: Option a) Arthropoda

The open circulatory system in the Phyla Arthropoda and Mollusca, have the coelomic cavity filled with blood called haemocoel.

# Q8. Elephantiasis is caused by

- (a) Wuchereria
- (b) pinworm
- (c) planarians
- (d) liver flukes.

# Answer: Option a) Wuchereria

Wuchereria (filarial worm) is a parasitic worm of Phylum Aschelminth's (Nematoda) and causes elephantiasis or filariasis spread by female Culex mosquitoes which cause swelling of the legs and scrotum.

- Q9. 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: Option a) Presence of notochord

Notochord is a solid, unjointed, rod-like structure on the dorsal side between nerve cord and the alimentary canal. In vertebrates, notochord is in the embryonic stage, and change to cartilaginous vertebral column in the adults.

# Q10. 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: Option c)

Fish and reptiles, have hard protective scales on skin for protection. The fish is covered with scales from the mesoderm (skin).

## Q11. Find out the false statement.

(a) Aves are warm blooded; egg laying and have four chambered heart.

(b) Aves have feather covered body, forelimbs are modified as wing and breathe through lungs.

- (c) Most of the mammals are viviparous.
- (d) Fishes, amphibians and reptiles are oviparous.

## Answer: Option a)

## Aves are warm blooded, egg laying and have four chambered heart.

Aves or birds are warm blooded animals with four-chambered heart, oviparous or egg laying and forelimbs are modified into wings and respire by lungs.

Mammals are viviparous i.e., give birth to young ones, except duck-billed platypus which are egg laying mammals.

Fish, amphibians and reptiles are oviparous i.e., lay eggs.

# Q12. Pteridophyta do not have

(a) root



- (b) stem
- (c) flowers
- (d) leaves.

## Answer: Option c) Flowers

The pteridophyte consist of roots, stem and leaves and do not bear flowers are reproductive organs by angiosperms.

- Q13. Identify a member of Porifera.
- (a) Spongilla
- (b) Euglena
- (c) Penicillium
- (d) Hydra
- Answer: Option a) Spongilla

Spongilla or fresh water sponge are of Phylum Porifera, Euglena of Protista, Penicillium of Fungi and Hydra of Coelenterate of Kingdom Animalia.

- Q14. Which is not an aquatic animal?
- (a) Hydra
- (b) Jelly fish
- (c) Corals
- (d) Filaria

## Answer: Option d) Filaria

Hydra, jelly fish or Aurelia and corals are coelenterates and aquatic. Filaria is a disease caused by filarial worm or Wuchereria which is a parasite in the lymphatic system of human beings.

## Q15. Amphibians do not have

(a) three chambered heart



- (b) gills or lungs
- (c) scales
- (d) mucus glands.

## Answer: Option c) Scales

Amphibians do not have scales on body with a three-chambered heart of two atria and one ventricle. Their respiratory organs are skin, lungs, buccopharyngeal cavity and gills and skin is moist due mucus glands.

## Q16. 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: Option b)

Kingdom Monera have all prokaryotic organisms like bacteria, archaebacteria, cyanobacteria, mycoplasma etc. with cellular structure and absence of cell organelles.

## Q17. Which of the following is not a criterion for classification of living organisms?

- (i) Body design of the organism
- (ii) Ability to produce one's own food
- (iii) Membrane bound nucleus and cell organelles
- (iv) Height of the plant
- (v) (ii) and (iii)

# Answer: Option v)

## (ii) Ability to produce one's own food

## (iii) Membrane bound nucleus and cell organelles

Height depends on factors like environment, nutrition etc. with genes, so all the members of a species have different heights and two different species have similar height, so height as criterion of classification is not practical.

## Q18. The feature that is not a characteristic of protochordate is

- (a) presence of notochord
- (b) bilateral symmetry and coelom
- (c) jointed legs
- (d) presence of circulatory system.
- Answer: Option c) Jointed legs

Protochordates do not have jointed leg but have notochord, bilaterally symmetrical, triploblastic, true coelom and a closed circulatory system.

# Q19. The locomotory organs of Echinodermata are

- (a) tube feet
- (b) muscular feet
- (c) jointed legs
- (d) parapodia.

## Answer: Option a) tube feet

Echinoderms have water-driven tube system called water vascular system. Tube feet help animal in locomotion, food and respiration.

## Q20. 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: Option d)

## Cnidarians that live in colonies.

Corals are cnidarians or coelenterates living in colonies. For examples: Corallium (red coral), Meandrina (brain coral) and Astraea (star coral) etc.

## Q21. Who introduced the system of scientific nomenclature of organisms?

- (a) Robert Whittaker
- (b) Carolus Linnaeus
- (c) Robert Hooke
- (d) Ernst Haeckel

## Answer: Option b) Carolus Linnaeus

Gaspard Bauhin or Casper Bauhin, a Swiss physician, and botanist, introduced a system of scientific binomial nomenclature of plants which was developed by Carolus Linnaeus (1751) who is the Father of binomial nomenclature.

## Q22. Two chambered heart occurs in

- (a) crocodiles
- (b) fish
- (c) Aves
- (d) amphibians.

# Answer: Option b) Fish

Fish of Class Pisces have a two-chambered heart with an atrium and a ventricle (exception is lungfish with three-chambered heart). Amphibians of Class Amphibia and reptiles (except crocodiles) have three-chambered heart with two atria and one ventricle. Crocodiles and birds of Class-Aves and mammals have four chambered heart with two atria and two ventricles.



# Q23. Skeleton is made entirely of cartilage in

- (a) sharks
- (b) tuna
- (c) rohu
- (d) none of these.

## Answer: (a) sharks

The sharks or Scoliodon is cartilaginous fish with cartila - ginous endoskeleton made of cartilage. bony fish has cartilaginous endoskeleton in the embryonic stage, in the adults it has bony endoskeleton, e.g., Rohu, Tuna etc.

#### Q24. One of the following is not an Annelid:

- (a) Nereis
- (b) Earthworm
- (c) Leech
- (d) Urchins.

## Answer: Option d) Urchins.

Urchins is of the Phylum Echinodermata e.g., Echinus or sea urchin, Nereis, Pheretima or earthworm and Hirudinaria or leech are annelids.

#### Q25. The book Systema Naturae was written by

- (a) Linnaeus
- (b) Haeckel
- (c) Whittaker
- (d) Robert Brown

Answer: Option a) Linnaeus



Carolus Linnaeus or Carl von Linna, a Swedish botanist, is the Father of Taxonomy who developed binomial system of nomenclature. The first edition of book 'Systema naturae' was printed in the Netherlands (1735), of twelve-page. Its 10th edition (1758), has 4400 species of animals and 7700 species of plants.

# Q26. Carl von Linna was involved with which branch of science?

- (a) Morphology
- (b) Taxonomy
- (c) Physiology
- (d) Medicine.

## Answer: Option b) Taxonomy

Carolus Linnaeus or Carl von Linne, a Swedish botanist, is the Father of Taxonomy who developed binomial system of nomenclature of organisms. The first edition of book 'Systema naturae' was printed in the Netherlands (1735), of twelve-page. Its 10th edition (1758), has 4400 species of animals and 7700 species of plants

- Q27. Real organs are absent in
- (a) Mollusca
- (b) Coelenterata
- (c) Arthropoda
- (d) Echinodermata.

## Answer: Option b) Coelenterate

Phylum Coelenterate or Cnidaria has cells grouped to form tissues, with specific functions. Tissues are not organized in organs. So, real organs are absent in Coelenterate. In the phylum Arthropoda, Mollusca and Echinodermata, tissues are organized to form organs and organ system.

## Q28. Hard calcium carbonate structures are used as skeleton by

(a) Echinodermata

- (b) Protochordate
- (c) Arthropoda
- (d) Nematoda.

## Answer: Option a) Echinodermata

In echinoderms, the endoskeleton or skeleton present is made up of hard calcium carbonate structures.

## Q29. Differentiation in segmental fashion occurs in

- (a) leech
- (b) starfish
- (c) snails
- (d) Ascaris.

## Answer: Option a) leech

Leech are Annelids, bilaterally symmetrical, triploblastic and true coelom. In annelids, organ differentiation is in a segmental fashion, with the segments one after the other from head to tail. Examples-earthworms, leeches etc.

## Q30. In taxonomic hierarchy family comes between

- (a) class and order
- (b) order and genus
- (c) genus and species
- (d) division and class.

## Answer: Option b) order and genus

Taxonomic hierarchy is a of categories arranged in descending order from kingdom to species or an ascending order from species to kingdom. The taxonomic hierarchy was first suggested by Carolus Linnaeus and has seven taxonomic categories in descending order as:

 $\mathsf{Kingdom} \to \mathsf{Phylum}/\mathsf{Division} \to \mathsf{Class} \to \mathsf{Order} \to \mathsf{Family} \to \mathsf{Genus} \to \mathsf{Species}$ 

From this hierarchy, family comes between order and genus.

# Q31. 5-Kingdom classification was given by

- (a) Morgan
- (b) R. Whittaker
- (c) Linnaeus
- (d) Haeckel

# Answer: Option b) R. Whittaker

Robert H. Whittaker (1969), an American taxonomist, suggested 5-kingdom system of classification which divides organisms – as Monera, Protista, Fungi, Plantae and Animalia.

## Q32. Well defined nucleus is absent in

- (a) blue green algae
- (b) diatoms
- (c) algae
- (d) yeast

# Answer: Option a) Blue green algae

Cyanobacteria (blue green algae), a prokaryotic organism are Members of Kingdom Monera with prokaryotic cellular structure and absence of a well-defined nucleus cell organelles.

# Q33. The 'Origin of Species' is written by

- (a) Linnaeus
- (b) blue green algae
- (c) Haeckel
- (d) Whittaker



## Answer: Option b) blue green algae

Charles Darwin gave idea of evolution (1859) in his book, The Origin of Species states that most life forms have changes in body design that help the organism to survive.

Q34. 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: Option b) Body with jointed legs

Insects are arthropods which have body with joints.

# **Short Answer Type Questions**

- Q35. 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 belong to the Kingdom Protista.
- (f) All prokaryotes are classified under Monera.

- (a) True
- (b) True
- (c) False-Starting from class, species comes after the genus.
- (d) True
- (e) False-Blue green algae belong to the Kingdom Monera.
- (f) True

Q36. Fill in the blanks.

- (a) Fungi show \_\_\_\_\_ 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, roots and leaves are kept in \_\_\_\_\_.

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

- (a) saprophytic
- (b) chitin
- (c) lichen
- (d) carbohydrate
- (e) Species
- (f) Thallophyta
- (g) Bryophytes

Q37. You are provided with the seeds of gram, wheat, rice, pumpkin, maize and pea. Classify them whether they are monocot or dicot.

#### Answer:

- a) Dicot seeds: Gram, pumpkin, pea
- b) Monocot seeds: Wheat, rice, maize

#### Q38. Match items of column I with items of column II.

| S/No. | Column I      | Column II.           |
|-------|---------------|----------------------|
| a.    | Naked seeds   | A. Angiosperm        |
| b.    | Covered seeds | B. Gymnosperm        |
| с.    | Flagella      | <b>C.</b> Bryophytes |
| d.    | Marchantia    | D. Euglena           |
| e.    | Marsilea      | E. Thallophyta       |
| f.    | Cladophora    | F. Pteriophyta       |
| g.    | Pencillium    | G. Fungi             |

#### Answer:

| S/No. | column l      | column II.   |
|-------|---------------|--------------|
| a.    | Naked seeds   | Gymnosperms  |
| b.    | Covered seeds | Angiosperms  |
| с.    | Flagella      | Euglena      |
| d.    | Marchantia    | Bryophyta    |
| е.    | Marsilea      | Pteridophyta |
| f.    | Cladophora    | Thallophyta  |
| g.    | Pencillium    | Fungi        |

#### Q39. Match items of column I with items of column II.

| S/No. | column I               | column II        |
|-------|------------------------|------------------|
| a.    | Pore bearing animals   | A. Arthropoda    |
| b.    | Diploblastic           | B. Coelenterata  |
| C.    | Metameric Segmentation | C. Porifera      |
| d.    | Jointed legs           | D. Echinodermata |
| е.    | Soft Bodied animals    | E. Mollusca      |
| f.    | Spiny Skinned animals  | F. Annelida      |

| S/No. | column I             | column II    |
|-------|----------------------|--------------|
| a.    | Pore bearing animals | Porifera     |
| b.    | Diploblastic         | Coelenterata |

| с. | Metameric Segmentation | Annelida      |
|----|------------------------|---------------|
| d. | Jointed legs           | Arthropoda    |
| е. | Soft Bodied animals    | Mollusca      |
| f. | Spiny Skinned animals  | Echinodermata |

Q40. Classify the following organisms based on the absence/presence of true coelom (i.e., acoelomate, pseudocoelomate and coelomate).

Spongilla, Sea anemone, Planaria, Liver fluke, Wuchereria, Ascaris, Nereis, Earthworm, Scorpion, Birds, Fishes, Horse.

## Answer:

- a) Acoelomates: Spongilla, Sea anemone, Planaria, Liver fluke
- b) Pseudocoelomates: Wuchereria, Ascaris
- c) Coelomates: Nereis, Earthworm, Scorpion, Birds, Fishes and Horse.

Q41. Endoskeleton of fishes are made up of cartilage and bone; classify the following fishes as cartilaginous or bony:

## Torpedo, Sting ray, Dog fish, Rohu, Anglerfish, Exocoetus.

#### Answer:

- a) Cartilaginous fishes: Torpedo, Sting ray and Dog fish.
- b) Bony fishes: Rohu, Angler- fish and Exocoetus.

## Q42. Classify the following based on number of chambers in their heart.

Rohu, Scoliodon, Frog, Salamander, Flying lizard, King cobra, Crocodile, Ostrich, Pigeon, Bat, Whale

- a) Two-chambered heart: Rohu, Scoliodon.
- b) Three-chambered heart: Frog, Salamander, Flying lizard, King cobra.
- c) Four-chambered heart: Crocodile, Ostrich, Pigeon, Bat, Whale.



Q43. Classify Rohu, Scolidon, Flying lizard. King Cobra, Frog, Salamander, Ostrich, Pigeon, Bat, Crocodile and Whale into the cold blooded/ warm blooded animals.

#### Answer:

a) Warm-blooded animals: Ostrich, Pigeon, Bat, Whale.

b) Cold-blooded animals: Rohu, Scoliodon, Flying lizard, King cobra, Frog, Salamander, Crocodile.

#### Q44. Name two egg laying mammals

#### Answer:

Two egg laying mammals are duckbilled platypus and Echidna or spiny ant eater.

#### Q45. 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 protist 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) R. Whittaker
- (b) Species
- (c) Monera
- (d) Unicellular eukaryotic organization
- (e) chlorophyll;

- (f) like mushroom
- (g) yeast
- (h) lichens.
- Q46. 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.

## Answer:

- (a) False Gymnosperms differ from angiosperms in having naked seeds.
- (b) True
- (c) False Bryophytes do not have conducting or vascular tissues.
- (d) True
- (e) True
- (f) True

# Q47. Give examples for the following.

- (a) Bilateral, dorsiventral symmetry is found in\_\_\_\_\_.
- (b) Worm causing disease elephantiasis is\_\_\_\_\_.
- (c) Open circulatory system is found in \_\_\_\_\_ where coelomic cavity is filled with blood.
- (d) \_\_\_\_\_are known to have pseudocoelom.



- (a) Platyhelmihthes
- (b) Wauchereria bancrofti
- (c) Arthropods
- (d) Annelids

# Q48. Label a, b, c and d. Given in Figure. Give the function of (b)



# Answer:

Caudal or tail fin (b) acts as a steering organ and helps in swimming of fish.



Q49. Fill in the boxes given in Figure with appropriate characteristics/plant group (s).



- (a) Thallophytes
- (b) Without vascular tissues;
- (c) Pteridophyta
- (d) Phanerogams
- (e) Bear naked seeds
- (f) Angiosperms
- (g) Have seeds with two cotyledons
- (h) Monocots.



# Long Answer Type Questions

## Q50. Write names of few thallophytes. Draw a labelled diagram of Spirogyra.

#### Answer:

Names of some thallophytes are:

Spirogyra, Ulothrix, Cladophora, Ulva, Chara, Laminaria, Gelidium etc.

Labelled diagram of Spirogyra is as follows:



Q51. Thallophyta, Bryophyta and Pteridophyta are called as 'cryptogams. Gymnosperms and angiosperms are called as 'phanerogams'. Discuss why? Draw one example of Gymnosperm.

## Answer:

Thallophyta, Bryophyta and Pteridophyta are called "cryptogams" (Kntyptos-hidden, gamos-to marry) as all they are seedless plants and have ordinary reproductive organs.



Gymnosperms and Angiosperms are called "phanerogams" (Phaneros-visible, gamos-to marry) have seeded plants and visible reproductive organs.



Fig. A: Female Cycas plant

**B: Male Cycas plant** 

Q52. Define the terms and give one example of each.

- (a) Bilateral symmetry
- (b) Coelom
- (c)Triploblastic

## Answer:

(a) **Bilateral symmetry**: is a symmetry in which the body of an organism is divided into two equal halves by a single plane through longitudinal axis of the body. Examples - Planaria, earthworm, cockroach, birds, reptiles, humans etc.

(b) **Coelom:** is body cavity between visceral organs and body wall with well-developed organs. In some animals pseudocoelom is present e.g., nematodes has body cavity without mesoderm. Annelids have true coelom lined by mesoderm. For examples: Earthworm, cockroach, snail, birds, humans etc.



(c) **Triploblastic**: The triploblastic animals have three primary germ layers-ectoderm (outer), mesoderm (middle) and endoderm (inner). All animals from Phylum Platyhelminthes to Chordata are triploblastic animals. For examples- Tapeworm, Ascaris, cockroach, Pila, fish, frog, crocodile, mammals etc.

Q53. You are given leech, Nereis, Scolopendra, prawn and scorpion; and all have segmented body organization. Will you classify them in one group? If no, give the important characters based on which you will separate these organisms into different groups.

#### Answer:

No, all the given organisms is not classified in one group as by some characters these organisms are separated from each other and are in two different group.

a) Leech and Nereis are in Phylum Annelida as both have metamerically segmented body i.e., body is divided into many segments by septa and closed circulatory system.

b) Scolopendra, Prawn and scorpion are in Phylum Arthropoda as their body is segmented and consists of head, thorax and abdomen and an open circulatory system and the coelomic cavity is blood-filled called haemocoel.

# Q54. Which organism is more complex and evolved among bacteria, mushroom and mango tree? Give reasons.

#### Answer:

Mango tree is more complex and evolved than bacteria, mushroom and mango tree as:

- a) Mango tree is a multicellular, eukaryotic and autotrophic.
- b) It has well developed sporophytic plant body with roots, stem and leaves.
- c) It has vascular tissues i.e., xylem and phloem for conduction of water, minerals and food.
- d) It has seeds in their fruits.
- e) It has an embryo stage.

Bacteria are unicellular prokaryotic and primitive organisms. Mushroom or fungi is multicellular and eukaryotic but not separated into roots, stem and leaves and do not have vascular tissue, seed, embryo stage etc.

Tissues, seeds and embryo stage.



## Q55. Differentiate between flying lizard and bird. Draw the diagram.

#### Answer:

Differences between flying lizard and bird are as follows:

|    | Flying Lizard                            | Bird   |
|----|--|--|
|    |  |  |
| a. | It belongs to Class- Reptilia.           | It belongs to Class-Aves.                      |
| b. | It is cold-blooded animal                | It is warm-blooded animal.                     |
| С. | Body is covered with scales.             | Body is covered with feathers.                 |
| d. | It has three- chambered heart            | It has four-chambered heart.                   |
| e. | Its forelimbs have fingers.              | Its forelimbs are modified into wings.         |
| f. | It can fly by gliding in air for a short | It can fly by stroking its feathered wings and |
|    | distance by extending the skin fold      | for long distances.                            |
|    | between its limbs                        |  |





# Q56. List out some common features in cat, rat and bat.

#### Answer:

Cat, rat and bat belong to Class- Mammalia and have following features:

- a) They have vertebral column.
- b) They have hair, sweat glands and oil glands on skin.
- c) They are warm-blooded.
- d) Their females are viviparous.
- e) They have 4-chambered heart.



- f) They have mammary glands.
- g) They have diaphragm's
- h) They have external ear.

## Q57. Why do we keep both snake and turtle in the same class?

#### Answer:

Snake and turtle belong to Class Reptilia as their characters are:

- a) They have scales on the body.
- b) They are cold-blooded.
- c) They respire by lungs.
- d) They have three-chambered heart.
- e) They lay eggs with tough coverings.