

*Question (1): What is the necessity of classification of organisms?*

**Answer:** Organic evolution has been taking place for 3.5 billion years. It is impossible to study every living organism from an individual level. Therefore, classification is necessary to facilitate easy study of organisms.

*Question (2): Give an example to illustrate how taxonomy is used in biological sciences.*

**Answer:** The science of biogeography (geographical distribution of plant and animals) is dependent on information supplied by classification.

*Question (3): What is 'Binomial Nomenclature'?*

**Answer:** The kind of naming in which each name has two components is called Binomial Nomenclature.

*Question (4): What is the scientific name for human beings? (Separate the components)*

**Answer:** Homo sapiens.  
Homo - generic name  
sapiens - specific name (species name).

*Question (5): Give two common features of plants.*

**Answer:** ● They are stationary  
● They trap the sun's energy to make food.

*Question (6): Name two kingdom systems.*

**Answer:** ● Plant kingdom  
● Animal kingdom

*Question (7): Explain the name of cryptogamae.*

**Answer:** Crypto - hidden  
Gamous – marriage

These plants do not have external flowers or seeds and hence, are considered to have hidden reproductive organs.

*Question (8): Give some example of class amphibia.*

**Answer:** Rana (frog), Bufo (toad), Hyla (tree frog) and Necturus are some examples of class amphibia.

*Question (9): Why are fungi called heterotrophic?*

**Answer:** Fungi are non-green. They obtain their food either from organic matter or from other living organisms. Hence, they are heterotrophic.

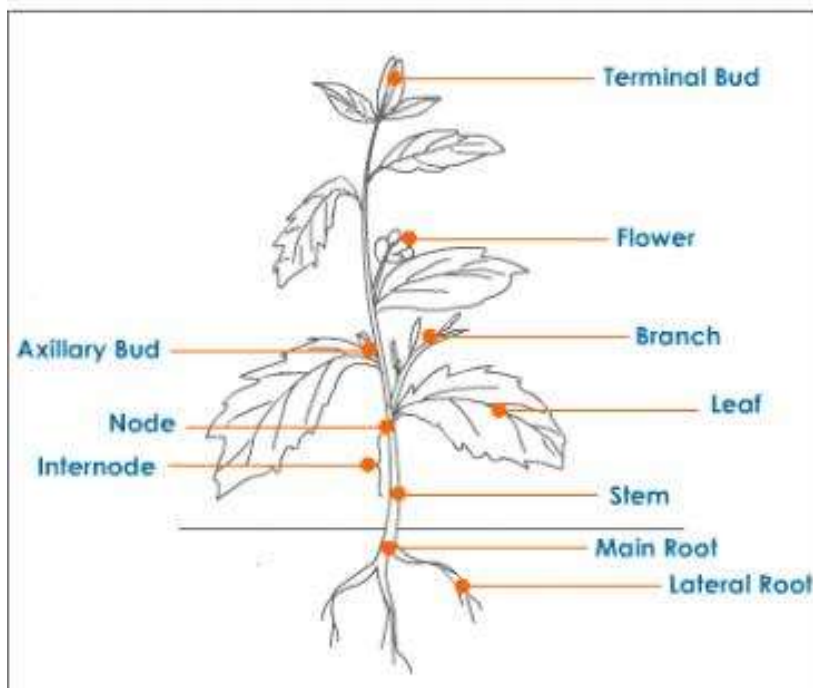
*Question (10): To which category do ferns belong?*

**Answer:** In the plant kingdom, ferns fall under the division pteridophyta of the sub-kingdom cryptogamae. That is



*Question (11): Draw a typical flowering plant and label the parts.*

**Answer:**



*Question (12): Differentiate between oviparous and viviparous animals.*

**Answer:** Oviparous animals are egg laying animals.  
Viviparous animals are those animals whose female gives birth to young ones.

*Question (13): Explain the term 'triploblastic'.*

**Answer:** The term triploblastic signifies that tissues are differentiated from 3 embryonic germ layers but without body cavity.

*Question (14): What is haemocoel?*

**Answer:** Phylum Arthropoda (of animal kingdom) have reduced body cavity which is filled with blood called haemocoel.

*Question (15): How do phylum mollusca breathe?*

**Answer:** In the Phylum mollusca respiration is through gills called ctenidia.

*Question (16): State any two features of animals.*

**Answer:**

- Animals generally move
- They depend on other plants or animals for food.

*Question (17): Which is the largest phylum of animal kingdom?*

**Answer:** The largest phylum of the animal kingdom is phylum arthropoda.

*Question (18): What is the advantage of taxonomy?*

**Answer:** Taxonomy is a branch of biological science that makes the study of organisms easier.

*Question (19): Name the two components of the scientific name of every organism.*

**Answer:** Genus and species are the two components of the scientific name of every organism.

*Question (20): Define classification.*

**Answer:** It is the arrangement of organisms into groups based on similarities or differences, which also show their relationships.

*Question (21): Give the difference between plant and animal cells.*

**Answer:** Plant cells are surrounded by a cell wall and possess chloroplasts. Animals cells have neither cell wall nor chlorophyll.

## DIVERSITY IN LIVING ORGANISMS

*Question (22): What are the two sub-kingdoms of plant kingdom?*

Answer:           ● Cryptogamae  
                      ● Phanerogamae

*Question (23): Give two features of division thallophyta.*

Answer:           ● Vascular system is absent  
                      ● Reproductive organs are single celled

*Question (24): Give two features of division bryophyta.*

Answer:           ● Plant body is flat and lacks true leaves.  
                      ● True vascular system is absent.

*Question (25): Give two features of pteridophyta.*

Answer:           ● Plant body is made of stem, leaves and roots.  
                      ● Vascular system is present.

*Question (26): What is the difference between gymnospermae and angiospermae?*

Answer:           ● In Gymnosperms, seeds are not enclosed in fruits.  
                      ● In Angiosperms, seeds are enclosed by a fruit.

*Question (27): Name some single celled organisms.*

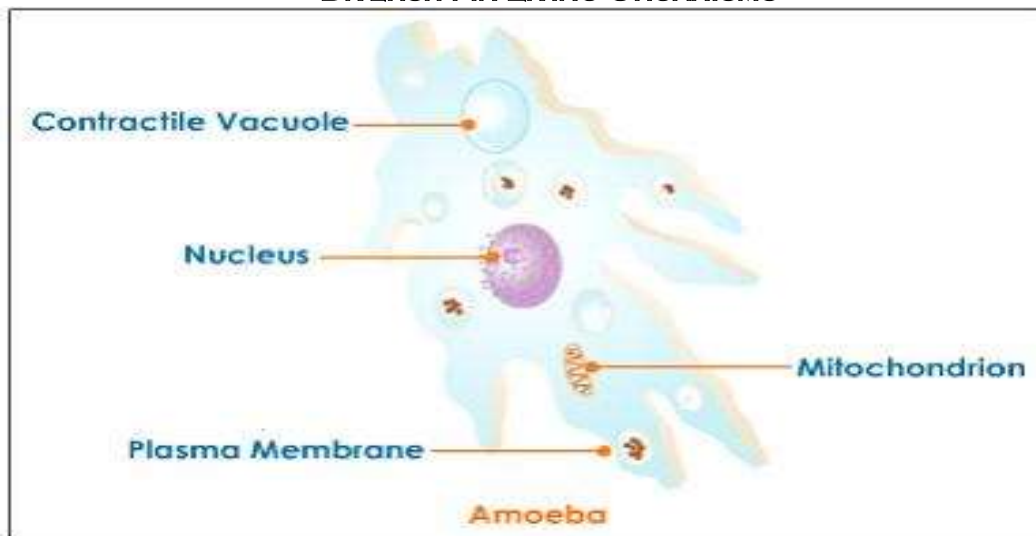
Answer:           Amoeba, Euglena, Paramocium, and Plasmodium are some single celled organisms.

*Question (28): To which sub-kingdom do hydra and corals belong?*

Answer:           Hydra and corals belong to the phylum cnidaria (coelenterata).

*Question (29): Draw an amoeba and name the parts.*

## DIVERSITY IN LIVING ORGANISMS



Answer:

Question (30): What is the difference between polyps and medusae?

Answer: Polyps are coelenterates which lead solitary or colonial life but are always fixed, but medusae are coelenterates that are free swimming.

Question (31): Describe a mollusca.

Answer: ● Mollusca has soft, unsegmented body.

- Body is divided into 3 regions: head, dorsal visceral mass and ventral foot.
- The outer surface is covered by a hard shell.

Question (32): What is the difference between class Reptilia and class Aves with respect to habitat?

Answer: Class Aves are found all over the world while class Reptalia is found in mostly terrestrial and warmer regions.

Question (33): Give two features of sub-phylum urochordata.

Answer: ● Pharynx has several gill slits.

- Body is unsegmented and usually adults lack a tail.

Question (34): What are the characteristics of phylum chordata?

Answer: ● Presence of notochord at some stage of life.

- Presence of hollow dorsal nerve cord.
- Gill slits at some stage of life.
- Tail behind and opening.

Question (35): Give two features of sub-phylum vertebrata.

Answer: ● Heart is well differentiated.

- Nervous system and endoskeleton is highly developed.

Question (36): Give some example of class amphibia.

Answer: Rana (frog), Bufo (toad), Hyla (tree frog) and Necturus are some examples of class amphibia.