

Shiksha Classes, Bhandara

Biology

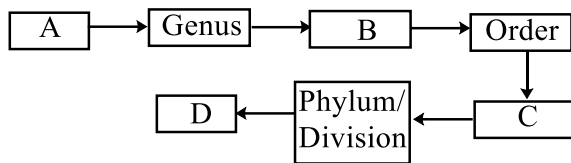
Topic : The living world

- (1.) Taxonomic studies of various organisms are useful in
- (a.) agriculture (b.) forestry
(c.) industry (d.) all of these
- (2.) All the taxonomic categories together constitute the
- (a.) taxon (b.) family
(c.) kingdom (d.) hierarchy
- (3.) The process of naming of living organisms is called
- (a.) systematics (b.) taxonomy
(c.) nomenclature (d.) none of these
- (4.) The characteristics of growth include
- (a.) increase in mass (b.) increase in number
(c.) increase in length (d.) both(a) and (b)
- (5.) The lowest taxonomic category is
- (a.) genus (b.) species
(c.) class (d.) family
- (6.) Identification of an organism means
- (a.) its correct description (b.) its correct classification
(c.) its correct nomenclature (d.) all of these
- (7.) Taxonomic studies require
- (a.) correct classification (b.) correct identification of organisms
(c.) intensive laboratory and field studies (d.) all of these
- (8.) Unicellular organisms grow by
- (a.) cell elongation (b.) cell division
(c.) accumulation of material on the surface (d.) none of these
- (9.) A store house of collected plant specimens that are dried, pressed and preserved on sheets is a
- (a.) herbarium (b.) botanical garden
(c.) zoological park (d.) catalogue

- (10.) ICBN stands for
- (a.) International Code for Biological Naming (b.) International Centre for Botanical Nomenclature
- (c.) Indian Code for Biological Nomenclature (d.) International Code for Botanical Nomenclature
- (11.) The basic requirement for placing an organism in various categories is the knowledge of
- (a.) characters of an individual (b.) characters of group of organisms
- (c.) binomial nomenclature (d.) both(a) and (b)
- (12.) Mountains, boulders and sand mounds also grow, but they are not considered as living organisms because they grow by
- (a.) accumulation of material on their inner surface. (b.) the division of their particles.
- (c.) accumulation of material on their outer surface. (d.) both(a) and (b)
- (13.) Among the following, which information is not provided by the herbarium sheet about a plant?
- (a.) Collector's name (b.) Place of collection
- (c.) Economic importance of plant species (d.) Botanical name of the plant
- (14.) Solanum includes species
- (a.) nigrum (b.) melongena
- (c.) tuberosum (d.) all of these
- (15.) Choose the correct statement about scientific names.
- (a.) They ensure that each organism has only one name. (b.) Description of any organism should enable the people to arrive at the same name.
- (c.) They ensure that such a name has not been used for any other organism. (d.) All of these.
- (16.) Choose the correct statement about growth in plants.
- (a.) Growth occurs continuously throughout their lifespan by cell division. (b.) The growth is seen only upto a certain age.
- (c.) Growth occurs by the accumulation of material on the upper surface of their cells. (d.) Growth occurs only in certain cells.
- (17.) The specialized gardens having collections of living plants for reference are
- (a.) Herbarium (b.) Botanical gardens
- (c.) Zoological parks (d.) Museum

- (18.) The taxonomic category, genus represents
- (a.) an individual organism (b.) a collection of organisms
(c.) a group of closely related species of organisms (d.) none of these
- (19.) The system of providing a name with two components is called
- (a.) trinomial nomenclature (b.) binomial nomenclature
(c.) uninominal nomenclature (d.) none of these
- (20.) In yeast and Hydra, reproduction occurs by
- (a.) conjugation (b.) sporulation
(c.) budding (d.) none of these
- (21.) 'Suffix' used for a unit of classification in plants to indicate 'family' taxonomic category is
- (a.) -ales (b.) -onae
(c.) -aceae (d.) ae
- (22.) The naming system, that is practised by biologists all over the world, was given by
- (a.) Carolus Linnaeus (b.) Whittaker
(c.) Haeckel (d.) Woese
- (23.) National Botanical Research Institute is situated at
- (a.) Howrah (b.) Lucknow
(c.) Dehradun (d.) Delhi
- (24.) The organism(s) that can multiply by fragmentation is/are
- (a.) fungi (b.) filamentous algae
(c.) protonema of moss (d.) all of these
- (25.) Biological museums have collection of
- (a.) preserved plant specimens (b.) preserved animal specimens
(c.) live plants and animals (d.) both(a) and (b)
- (26.) The taxonomic category 'order' lies between
- (a.) Genus and species (b.) Genus and family
(c.) Family and class (d.) Class and phylum
- (27.) Select correctly written scientific name of mango which was first described by Carolus Linnaeus.
- (a.) *Mangifera indica* Car Linn. (b.) *Mangifera indica* Linn.
(c.) *Mangifera indica* (d.) *Mangifera Indica*

- (28.) In Amoeba, reproduction is synonymous with
- (a.) digestion (b.) growth
(c.) locomotion (d.) none of these
- (29.) Insects are preserved in insect boxes
- (a.) in preservative solutions (b.) after stuffing
(c.) after collecting, killing and pinning (d.) as skeletons
- (30.) In *Mangifera indica* Linn., the specific epithet is
- (a.) *Mangifera* (b.) *indica*
(c.) Linn. (d.) Both(a) and (b)
- (31.) Choose the incorrect statement from the following.
- (a.) Each genus may have one or more than one specific epithets representing different organisms. (b.) Potato and brinjal are two different species but both belong to the genus *Solanum*.
(c.) 'Families' are characterized on the basis of merely reproductive features of plant species. (d.) 'Order' is a higher taxonomic category and is identified on the basis of aggregates of characteristics.
- (32.) Living organisms that do not reproduce are
- (a.) mule (b.) worker bees
(c.) infertile human couples (d.) all of these
- (33.) Choose the incorrect statement about rules of nomenclature.
- (a.) Biological names are generally given in Latin. (b.) The first word in biological name represents the genus while the second component denotes the specific epithet.
(c.) When hand written, both words of biological names are separately underlined. (d.) Both the words of biological name starts with capital letter.
- (34.) Fishes, amphibians, reptiles and birds represent which taxonomic category?
- (a.) Class (b.) Phylum
(c.) Order (d.) Kingdom
- (35.) The place where wild animals are kept in protected environment is
- (a.) botanical garden (b.) zoological park
(c.) museum (d.) herbarium



- (a.) B (b.) A
(c.) C (d.) D
- (43.) Biological names are generally written in
(a.) Greek language (b.) Latin language
(c.) English language (d.) Hindi language
- (44.) An isolated metabolic reaction outside the body of an organism, performed in a test-tube is
(a.) living (b.) non-living
(c.) neither living nor non-living (d.) sometimes living and sometimes non-living depending upon environmental factors
- (45.) Choose the incorrect statement from the following:
(a.) All living organisms exhibit metabolism. (b.) Metabolism is the sum total of all chemical reactions occurring in our body.
(c.) Metabolism is a defining feature of all living organisms. (d.) Metabolic reactions cannot be demonstrated outside the body in cell-free systems.
- (46.) The kingdom that comprises all plants from various divisions is
(a.) Plantae (b.) Animalia
(c.) Chordata (d.) Mammal
- (47.) The process by which organisms are grouped into convenient categories based on some easily observable characters, is called
(a.) taxonomy (b.) identification
(c.) classification (d.) nomenclature
- (48.) Plants and animals are identified by key on the basis of their
(a.) morphology (b.) anatomy
(c.) similarities and dissimilarities (d.) all of these
- (49.) The keys are based on contrasting characters generally in a pair called
(a.) couplet (b.) doublet
(c.) triplet (d.) all of these

- (50.) The scientific term used for the categories of organisms to study them is
- (a.) taxa
 - (b.) biological name
 - (c.) systematics
 - (d.) none of these

Shiksha Classes, Bhandara

ANSWER

(1.)	d	(2.)	d	(3.)	c	(4.)	d	(5.)	b
(6.)	a	(7.)	d	(8.)	b	(9.)	a	(10.)	d
(11.)	d	(12.)	c	(13.)	c	(14.)	d	(15.)	d
(16.)	a	(17.)	b	(18.)	c	(19.)	b	(20.)	c
(21.)	c	(22.)	a	(23.)	b	(24.)	d	(25.)	d
(26.)	c	(27.)	b	(28.)	b	(29.)	c	(30.)	b
(31.)	c	(32.)	d	(33.)	d	(34.)	a	(35.)	b
(36.)	a	(37.)	c	(38.)	c	(39.)	b	(40.)	d
(41.)	c	(42.)	b	(43.)	b	(44.)	c	(45.)	d
(46.)	a	(47.)	c	(48.)	c	(49.)	a	(50.)	a

Shiksha Classes, Bhanu

EXPLANATION

- (1.) (d) Taxonomic studies of various organisms are useful in all of these, i.e., agriculture, forestry and industry. It is helpful in finding their relationship with others.
- (2.) (d) All the taxonomic categories together constitute the taxonomic hierarchy. Each category is referred to as a unit of classification.
- (3.) (c) The process of naming of living organisms is called nomenclature. Organisms are named in such a way that a particular organism is known by the same name all over the world.
- (4.) (d) The characteristics of growth include increase in mass as well as increase in number of individuals. There are the two twin characteristics of growth plants grow throughout their lifespan. Unlike to it, animals grow upto a certain age. Non-living objects grow by the accumulation of material on their upper surface.
- (5.) (b) The lowest taxonomic category of all the organisms is species. It is a natural population of individuals or group of populations which resemble one another in all essential morphological and reproductive character.
- (6.) (a) Identification of an organism means its correct description. Nomenclature is only possible when the organism is described correctly. Classification is keeping organisms into different categories based on some specific characteristics.
- (7.) (d) Taxonomic studies require correct classification and identification of organisms. Identification of organisms requires intensive laboratory and field studies.
- (8.) (b) Unicellular organisms grow by cell division. This can be clearly observed in in vitro culture.
- (9.) (a) A store house of collected plant specimens that are dried, pressed and preserved on sheets is herbarium.
- (10.) (d) ICBN stands for International Code for Botanical Nomenclature. It is the set of rules and recommendations dealing with the formal botanical names that are given to plants. Its intent is that each taxonomic group of plants has only one correct name that is accepted worldwide.
- (11.) (d) The basic requirement for placing an organism in various categories is the knowledge of characters of an individual or group of organisms. It helps in identifying similarities and dissimilarities among organisms.
- (12.) (c) Mountains, boulders and sand mounds also grow but, they are not considered as living organisms because they grow by accumulation of material on their outer surface.
- (13.) (c) The herbarium sheet does not provide any information about the economic importance of that particular plant species.
- (14.) (d) Solanum is a polytypic genera that includes more than one species. Solanum includes all the given species i.e., *S. nigrum*, *S. melongena* and *S. tuberosum*.
- (15.) (d) All the given statements about scientific names are correct. These names ensure only one name for an organism that has not been used for any other organism. Description of an organism enables every person to arrive at the same name.
- (16.) (a) In plants, growth occur continuously throughout their lifespan by cell division. In animals, growth is seen only upto a certain age. In non-living things growth occurs by the accumulation of material on their upper surface.
- (17.) (b) Botanical gardens are the specialized gardens having collections of living plants for reference.
- (18.) (c) The taxonomic category, genus represents a group of closely related species of organisms. It has more characters in common in comparison to species of other genera.
- (19.) (b) The system of providing a name with two components is called binomial nomenclature. For example the botanical name of mango is *Mangifera indica*.

- (20.) (c) In yeast and Hydra reproduction occurs by budding.
- (21.) (c) The 'suffix' used for a unit of classification in plants to indicate 'family' taxonomic category is '-aceae', e.g., Solanaceae.
- (22.) (a) The naming system that is practiced by biologists all over the world is binomial nomenclature. It was proposed by Carolus Linnaeus.
- (23.) (b) National Botanical Research Institute is situated at Lucknow, Uttar Pradesh. It is amongst one of the constituent research institutes of the CSIR.
- (24.) (d) All the given organisms, i.e., fungi, filamentous algae and protonema of moss can multiply by fragmentation.
- (25.) (d) Biological museums have collection of preserved plant and animal specimens. These are used for study and references.
- (26.) (c) The taxonomic category 'order' lies between family and class. It is the assemblage of families which exhibit a few similar characters.
- (27.) (b) The correctly written scientific name of mango which was first described by Carolus Linnaeus is *Mangifera indica* Linn. *Mangifera* represents the genus while *indica* is the name of species. The name of the taxonomist who discovered the organism and provided with its scientific name remains appended to this two word name.
- (28.) (b) In Amoeba, reproduction is synonymous with growth, i.e., increase in number of cells.
- (29.) (c) Insects are preserved as dry specimen. They are preserved in insect boxes after collecting, killing and pinning.
- (30.) (b) In *Mangifera indica* Linn., specific epithet is *indica*. *Mangifera* represents the generic name, while Linn. denotes Linnaeus, the abbreviated form of scientist's name who first described it.
- (31.) (c) 'Families' are characterized not only on the basis of reproductive features, but vegetative features also.
- (32.) (d) The living organisms that do not reproduce are mules, sterile worker bees and infertile human couples.
- (33.) (d) In biological names, the first word denoting the genus starts with a capital letter. On the other hand, the specific epithet starts with a small letter, e.g., *Mangifera indica*.
- (34.) (a) Fishes, amphibians, reptiles and birds represent the taxonomic category-class. A class is made of one or more related orders.
- (35.) (b) Zoological parks are the places where wild animals are kept in protected environment.
- (36.) (a) Planaria show regeneration. It can regenerate the lost parts of its body. Hydra reproduces by budding. An outgrowth develops as a bud which gives rise to a new Hydra after detaching from the parent organism. Many filamentous fungi show asexual reproduction by fragmentation. The fragmented part forms a new organisms. Amoeba shows binary fission.
- (37.) (c) The sum total of all the living reactions occurring in our body is metabolism. It is a characteristic feature of living organisms.
- (38.) (c) Zoological parks are commonly known as zoo. Zoo is a place where various living animals are kept with enclosures.
- (39.) (b) The 'phylum' taxon of animal classification is equivalent to 'division' taxon of plant classification. It is a category higher than that of class. A division is formed of one or more class.
- (40.) (d) According to the rules of ICBN, the generic and specific names should be written starting with small letters. This is known as binomial nomenclature and was developed by Linnaeus. It is the system of providing organism with appropriate and distinct names consisting of two words, first generic and second specific. The generic word is also called genus. The specific epithet represents the species.

- (41.) (c) Zoological parks and botanical gardens have collection of both exotic and endemic living species.
- (42.) (b) In the figure, 'A' is showing species category of Taxonomy. The members of this taxon will show maximum similar characteristics.
- (43.) (b) Biological names are generally written in Latin language. They are latinised or derived from Latin language irrespective of their origin.
- (44.) (c) An isolated metabolic reaction outside the body of an organism, performed in a test-tube is neither living nor non-living. These reactions are carried in vitro, i.e., in a cell-free system. Hence, there are living reactions but not living things.
- (45.) (d) Metabolic reactions can be demonstrated outside the body in cell-free systems. Such in vitro metabolic reactions are neither living nor non-living.
- (46.) (a) The kingdom that comprises of all plants from various divisions is Plantae. It is the highest taxonomic category.
- (47.) (c) The process by which organisms are grouped into convenient categories based on some easily observable characters is called classification.
- (48.) (c) Plants and animals are identified by key on the basis of their similarities and dissimilarities.
- (49.) (a) The keys are based on contrasting characters generally in a pair called couplet. It represents the choice made between two opposite options. Separate taxonomic keys are used for each taxonomic category like family, genus and species. Two types of keys are commonly used; indented and bracketed.
- (50.) (a) The scientific term used for the categories of organisms to study them is taxa. It can indicate categories at very different levels.

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