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Classification of Living Organisms

Living and non-living the two natural structures are found in the entire world. From which non-living organisms or components are studied by Physics and Chemistry while living organisms are studied by Biology i.e. Life is a property of a living organisms. Many biologists or scientists derived many principles for the origin of life, by that way they derived clear definition of living organism. "Which has proper growth, which shows different types of physiological processes, which develop with the concern of environment and get proper adaptation and they have particular lifespan which reproduce new life that is known as living organism." After that it dies. At the mature age living organism reproduce new offsprings after the death of old living organisms they replace them so that they maintain continuation of life generation to generation of specific species.

- (1) Which of the following branches of Science deal with study of non-living components ?
(A) Physics and Chemistry (B) Chemistry and Biology
(C) Biology and Physics (D) Physics and Account
- (2) Which of the following characteristic is not true for plant ?
(A) Reproduction (B) Locomotion (C) Growth (D) Adaptation
- (3) Living being can produce new living beings similar to itself on reaching maturity is known as....
(A) Regeneration (B) Adaptation (C) Reproduction (D) Differentiation
- (4) Organisms incapable for reproduction
(A) Interspecific (B) Mature (C) Reproductive (D) Sterile
- (5) Which of the following is the method of reproduction ?
(A) Power of regeneration (B) Biological power
(C) Life power (D) Free energy
- (6) By which process, existence of living being is maintained ?
(A) Adaptation (B) Reproduction (C) Development (D) Differentiation
- (7) By reproduction existing new living beings...
(A) Die before reproduction (B) Take the position in place of dead ones
(C) Do not reproduce again (D) Do not show adaptation
- (8) What is Entropy ?
(A) Anabolism (B) Catabolism (C) Disorder (D) None of the above
- (9) Which phylum shows maximum level of regeneration capacity ?
(A) Reptilia (B) Platyhelminthes (C) Porifera (D) Echinodermata
- (10) is the major characteristics of the living.
(A) Death (B) Growth (C) Reproduction (D) Adaptation

Answers : (1 -A), (2-B), (3-C), (4-D), (5-A), (6-B), (7-B), (8-C), (9-D), (10-A)

• **Metabolism :**

Metabolism is a complex biochemical reaction. As a result of these reactions degradation or growth take place in living organism. During these processes conversion of energy is required and living organisms get the energy from the food materials.

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- (11) Which process is essential to perform biological activities ?
 (A) Energy (B) Energy transformation
 (C) Free energy (D) Food
- (12) Where do different types of biochemical processes are constantly carried out ?
 (A) Blood plasma (B) Cytoplasm (C) Cell (D) Brain
- (13) By which name is complex biochemical processes in each living cell of organisms is known as ?
 (A) Growth (B) Metabolism (C) Differentiation (D) Development
- (14) In metabolism process, anabolism means...
 (A) Degradation process (B) Differentiation process
 (C) Creative process (D) Progressive process
- (15) In metabolism process, catabolism...
 (A) Degradation process (B) Differentiation process
 (C) Creative process (D) Progressive process
- (16) If the ratio of anabolic process is more than catabolic process occurs.
 (A) Differentiation (B) Growth (C) Wear and Tear (D) Degradation
- (17) If the ratio of catabolic process is more than anabolic process occurs.
 (A) Differentiation (B) Growth (C) Wear and Tear (D) Degradation
- (18) In body, which type of processes are protein synthesis and digestion of protein ?
 (A) Catabolism, anabolism (B) Catabolism, degradation
 (C) Anabolism, catabolism (D) Degradation, anabolism
- (19) process of energy takes place during metabolism of a living organism.
 (A) Degradation (B) Differentiation (C) Transformation (D) Replication
- (20) From where, living organisms get energy required to do biological activities ?
 (A) From environment (B) From another organism
 (C) From stored energy (D) From their food

Answers : (11-B), (12-B), (13-B), (14-C), (15-A), (16-B), (17-C), (18-C), (19-C), (20-D)

• **Growth, Development, Reaction with Environment, Adaptation, Death :**

To grow in quantity and in number is a character of living organism. With Growth development also occurs. Each and every living organism react with its own environment. In which external factors play important role. So that every living organisms show changes somewhat in their body structure, method of function or behaviour and than adaptation occurs with the environment. It is known as adaptation and afterwards every living organisms dies. Increasing in the entropy specific living organisms dies. Death is one of the meaningful event.

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- (21) By which process living organisms increases volume of their body ?
 (A) Cell-differentiation (B) Cell-division (C) Cell- degradation (D) Cell-growth
- (22) In unicellular organisms cell division results in...
 (A) Growth of organism (B) Growth of their cell number
 (C) Growth of their volume (D) No change in living organism
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- (23) In which of the following growth takes place throughout their life ?
(A) Plants (B) Porifera (C) Protozoa (D) Vertebrata
- (24) By which process, members of the same species produce zygote by mating ?
(A) Differentiation (B) Degradation (C) Fertilization (D) Development
- (25) Changes take place in cells on the basis of specific functions is known as
(A) Differentiation (B) Degradation (C) Fertilization (D) Development
- (26) Due to differentiation in cells, tissues and organs are developed. This is known as
(A) Growth (B) Development (C) Tissue formation (D) Organogenesis
- (27) What is the form of efficiency of manifestation of feeling ?
(A) Physical (B) Chemical (C) Biological (D) All of the above
- (28) Which of the following are external factors for plant reaction ?
(A) Light, water (B) Light, water, temperature
(C) Light, water, temperature, another organisms (D) Option (C) and Pollutants
- (29) Living organisms breed with respect of which factor ?
(A) Environmental factor (B) Self choices
(C) Surrounding habitat (D) Self efficiency of breeding
- (30) How living organisms do try to show adaptations ?
(A) By body structure (B) By mode of action (C) By behaviour (D) All of the above
- (31) Those organisms who develop their characters for sustaining influence on efficiency of breeding are known as
(A) More easier (B) More adaptive (C) More dominant (D) None of them
- (32) Organisms live in their habitat because...
(A) They get food there. (B) They get protection there.
(C) They are adapted to their habitat. (D) All of the above
- (33) Required energy of any system is called
(A) Free energy (B) Mechanical energy (C) Chemical energy (D) Stored energy
- (34) When do measure of disorder increases in living body ?
(A) During exchange of energy (B) During use of energy
(C) During decomposition of energy (D) During transportation of energy
- (35) When entropy increases in living body
(A) Amount of free energy decreases (B) Amount of free energy increases
(C) The efficiency decreases (D) (A) and (C) both
- (36) Which one of the following balance the cycle of components ?
(A) Adaptation (B) Metabolism (C) Death (D) Variation
- (37) What will happen when in all organs entropy increase and reach at the maximum level ?
(A) Adaptation (B) Death (C) Variation (D) Reproduction

- (38) Death is meaningful event because
- (A) The number of living individuals of each species remains limited.
(B) Provide scope for the birth for new creatures.
(C) Components of body further turn to environment.
(D) All of the above

Answers : (21-B), (22-B), (23-A), (24-C), (25-A), (26-D), (27-D), (28-D), (29-A), (30-D), (31-B), (32-C), (33-A), (34-A), (35-D), (36-C), (37-B), (38-D)

• **Efficiency to maintain heredity and variation :**

In all living organisms nucleic acid DNA molecule is responsible for the inheritance properties. Which has complex coded language for internal reactions and properties, which is known as Gene. In one species differences occur in living organisms in own surrounding that is called variation. These type of variation occur in specific species characters after the adaptation. Afterwards speciation occurs.

- (39) Properties of tissues are based on
- (A) interaction of their cells. (B) constituents of cells.
(C) function of organelles. (D) arrangement of cells.
- (40) Properties of cell are
- (A) due to constituent of cellular organelles.
(B) result of interaction of cellular activity.
(C) due to function of organelles.
(D) due to constituent of molecular components of organelles.
- (41) Which molecule is inherited by the next progeny produced by parents ?
- (A) DNA (B) ATP (C) RNA (D) GTP
- (42) What is unit of Inheritance ?
- (A) Cell (B) Gene (C) Nucleic acid (D) Chromosome
- (43) We see around us, we find various living organisms. This property is known as
- (A) Development (B) Reaction (C) Variation (D) Adaptation
- (44) Which process is adopted by the living organisms to their nature to get maximum utilization from it ?
- (A) Development (B) Variation (C) Reaction (D) Adaptation
- (45) Those organisms who have efficient variations to use environment are known as
- (A) Successful animals (B) Dominant animals (C) Adaptive animals (D) Active animals
- (46) What happens when variations increases in such a way that organisms differ from their original parental characters ?
- (A) A new species arise (B) A new genus arise
(C) A new organism arise (D) All of these
- (47) What is responsible for formation of new species ?
- (A) Adaptation (B) Death (C) Organisation (D) Variation
- (48) For which process DNA is responsible in higher classes of organisms ?
- (A) For sex determination (B) To maintain legacy
(C) For genetic engineering (D) For organ transplantation

Answers : (39-A), (40-B), (41-A), (42-B), (43-C), (44-D), (45-A), (46-A), (47-D), (48-B)

• **Organisation :**

There are various layers of organisation in living organisms. Which is constructed from atoms to living organisms and living organisms to biosphere.

- (49) What will be formed by association of organelles ?
(A) Tissue (B) Organs (C) Cell (D) Organ systems
- (50) Organisms of a same species constitute
(A) Biomes (B) Social group (C) Ecosystem (D) Population
- (51) What is formed by interactions between biotic community and environment ?
(A) Biomes (B) Biosphere (C) Ecosystem (D) Population
- (52) Select the correct sequence.
(A) Tissue - Cell - Organ - Organism (B) Organelle - Organ - Tissue - Organism
(C) Molecules - Cell - Organ system - Organism (D) Cell - Organ system - Tissue - Organism
- (53) How ecosystem are structured ?
(A) Interactions between biomes and energy
(B) Interactions between population and species
(C) Interactions between population and environment
(D) Interaction between biotic community and environment
- (54) What organises to form a biospheres ?
(A) By gathering of species (B) By gathering of biotic community
(C) By gathering of ecosystems (D) By gathering of populations

Answers : (49-C), (50-D), (51-C), (52-C), (53-D), (54-C)

• **Biodiversity :**

There are various types of living organisms living in biosphere, this is known as biodiversity. Billions of species are present on the earth. Which is examined by biomes - observations.

- (55) Animals show diversity in
(A) Shape and size (B) Only shape
(C) Life style and structure (D) (A) and (C) both
- (56) What is the method adopted by scientists in order to facilitate specific study of living organisms ?
(A) Distribution system (B) Classification system (C) Organisation system (D) (A) and (C) both
- (57) When we can observe more and more biodiversity by living organisms ?
(A) By making continuous observation (B) By extending observation fields
(C) By classifying organisms (D) (A) and (B) both
- (58) Approximately how many species are identified till today ?
(A) 17 to 18 lacs (B) 27 to 29 lacs (C) 7 to 18 lacs (D) 37 to 40 lacs
- (59) What is the number of estimated species in the world ?
(A) 17 lacs (B) 17 lacs to 5 crore (C) 50 lacs (D) 50 lacs to 5 crores

Answers : (55-D), (56-B), (57-D), (58-A), (59-D)

• **Nomenclature :**

When we study about living organisms we identify the living organisms by their local names in Biology. But in one country and their states only one living organisms having different name so that study is troublesome. For this, specific name is required for each living organisms. By the adaptation of rules for living organisms these method is called Nomenclature and perfect description given to specific organisms known as identification. This process is more complex. But it is used for aproved classification method because in classification of living organisms it is classified by the taxon and these organisation is distributed by taxons. So it is known as taxonomy.

- (60) What is the method adopted to agreed principals for naming is called ?
(A) Identification (B) Neosystematics (C) Nomenclature (D) Classification
- (61) When can identification be possible ?
(A) If description has to be done correctly (B) If naming has to be done correctly
(C) If study has to be done correctly (D) If local names are correct
- (62) At primary level, classification is a process in which arrangement is there.
(A) Provision of taxon
(B) Easily observable characters
(C) Organisms are meaningfully classified into groups
(D) Nomenclature of organisms
- (63) Classification is a process in which...
(A) Provision of taxon arrangement (B) Easily observable characters are present
(C) Only taxon arrangement (D) (A) and (B) both
- (64) Which scientific word is used for proper group for study of living organisms ?
(A) Category (B) Taxon (C) Subclass (D) (A) and (C) both

Answers : (60-C), (61-A), (62-C), (63-D), (64-B)

• **History of classification method :**

- Classification is precise method of logical arrangement of organisms.
- Reference to classification are found in Shshrut Samhita.
- Greek Philosopher Aristotle had proposed classification of organisms.
- Carolus Linnaeus is father of taxonomy. He gave binomial Nomenclature.

- (65) Which of the following is reference to classification ?
(A) Manu's writing (B) Sushrut Samihita (C) Ayurveda (D) Yajurveda
- (66) Who had not done research in field of classification ?
(A) Bentham & Hooker (B) Aristotle (C) Robert Brown (D) Whittaker
- (67) Five kingdom classification was given by
(A) Bentham and Hooker (B) Aristotle (C) Linnaeus (D) Whittaker

- (68) Which of the following method is known for scientific name of living organisms ?
 (A) New systematic classification method (B) Five kingdom classification
 (C) Standard classification (D) Binomial nomenclature method
- (69) Who developed binomial nomenclature method ?
 (A) Bentham and Hooker (B) Carolus Linnaeus (C) Huxley (D) Aristotle
- (70) Which greek philosopher proposed classification of organisms ?
 (A) Bentham and Hooker (B) Carolus Linnaeus (C) Huxley (D) Aristotle
- (71) Who is known as father of taxonomy ?
 (A) Aristotle (B) Huxley (C) Whittaker (D) Carolus Linnaeus
- (72) Who developed new systematics method ?
 (A) Aristotle (B) Sir Julian Huxley (C) Whittaker (D) Carolus Linnaeus
- (73) Which one of the following is essential condition to study classification ?
 (A) The knowledge of characters of organisms and salient features of groups and taxa.
 (B) Expertness to use required instruments.
 (C) Detailed study of the field which is to be studied.
 (D) Subjective knowledge
- (74) Which systematics has developed through compilation of different branches ?
 (A) Chemotaxonomy (B) Cytotaxonomy
 (C) Numerical taxonomy (D) All of these

Answers : (65-B), (66-C), (67-D), (68-D), (69-B), (70-D), (71-D), (72-B), (73-A), (74-D)

• **Sources to study systematics :**

A scholar of systematics has to take training for field study, obeying their rules. For this type of study specific needed instruments, chemical, etc. are essential during the study. In any situations live in entire fields. Specimen of plants or preservation methods of animal specimens. Zoological parks, Museum, Botanical gardens, Herbaria, etc. are source of taxonomical study. Apart from this specimens, photograph or slides can be studied.

- (75) Which important characters are required in scholar dealing with taxonomy field study ?
 (A) Curiosity (B) Concentration (C) Patience (D) All of these
- (76) Which equipments should be kept with scholar of taxonomy during study ?
 (A) Binocular, Scissors, Pages, Chair (B) Binocular, Camera, Cutter, Forceps, Bags
 (C) Binocular, Cutter, Forceps, Umbrella (D) Camera, Pages, Cutter, Big pouches
- (77) Forests, mountains, grounds, grassland, rivers, lakes, oceans like places are like source for field study.
 (A) Open ecosystem (B) Open books (C) Natural treasure (D) Natural factors
- (78) Which plants are bred in botanical gardens ?
 (A) Medicinal plants (B) Economically important
 (C) Rare plants (D) All of these

- (79) Where dead stuffed bodies, skeleton, fossils of animals are kept ?
- (A) Museum (B) Zoo
- (C) (A) and (B) both (D) None of the above

Answers : (75-D), (76-B), (77-B), (78-D), (79-A)

• **Principles of Taxonomy :**

The nomenclature and classification is based on definite rules. Scientific names of plants are based as per principles of International Code for Botanical Nomenclature (ICBN), Animal taxonomists have to execute the principle of International Code for Zoological Nomenclature (ICZN).

- (80) Principles of which institutes have to execute for scientific names of plants and animals respectively ?
- (A) ICBN and ICZN (B) CZN and IABG
- (C) ICBN and ICZN (D) WCU and WWF
- (81) After what and how the author's name is written ?
- (A) Species name in abbreviated form (B) Generic name and capital letters
- (C) Generic name and small letters (D) Generic name in abbreviated form
- (82) When scientific name is written by hand
- (A) Each separate word should be underlined by dotted line and if is printed in italic form.
- (B) Each separate word should be underlined and it is printed in italic form.
- (C) Each separate word should be underlined by dotted line and it is printed in latin word.
- (D) Each separate word should be underlined and it is printed in latin form.

Answers : (80-A), (81-A), (82-B)

• **Categories of Classification :**

Classification is not only one step method but it is method of series of sequential steps; in which each taxon shows category. If taxon is part of classified arrangement with all aspects, it is called a taxonomic category. On the basis of characters of different living organisms serially taxons of each living organisms are classified. There is more similarities when we go towards species.

- (83) Each taxon in classification shows
- (A) Taxa (B) Category (C) Sequential steps (D) Class
- (84) What is called category given to all living groups at different levels of classification ?
- (A) Category (B) Kingdom (C) Taxa (D) Taxonomic category
- (85) What is taken as a reference of unit in classification ?
- (A) Each class (B) Each kingdom (C) Each taxon (D) Each category
- (86) The main group in which all other groups of organisms at different levels of classification are included is known as
- (A) Kingdom (B) Species (C) Family (D) Class
- (87) Select correct sequence for decreasing order of variation
- (A) Kingdom - Class - Family - Species (B) Class - Kingdom - Species - Family
- (C) Species - Family - Class - Kingdom (D) Species - Class - Family - Kingdom

- (88) Select correct sequence for increasing order of similarity
- (A) Family - Genus - Order - Class (B) Class - Order - Family - Genus
(C) Genus - Family - Order - Class (D) Order - Class - Family - Genus
- (89) What is called a group of living individuals which have more similarity in most of their characters and are capable of interbreeding and giving rise to fertile offspring are called ?
- (A) Genus (B) Family (C) Species (D) Order
- (90) What is group of species having a common ancestor called ?
- (A) Genus (B) Family (C) Species (D) Order
- (91) Extinct human race is known as
- (A) americana (B) columbidae (C) sapiens (D) erractus
- (92) What is called a group of genera ?
- (A) Order (B) Class (C) Category (D) Family
- (93) Which of the following family is associated with the study of ornithology ?
- (A) Blattidae (B) Ranidae (C) Columbidae (D) Megascolecidae
- (94) A group of interrelated families constitute
- (A) Class (B) Phylum (C) Order (D) Divison
- (95) A subclass is a group of
- (A) A group of families (B) A group of series (C) A group of species (D) A group of orders
- (96) The categories depends on their common characters...
- (A) Genus, species, family (B) Species, family, order
(C) Genus, species, series (D) Series, family, order
- (97) Which of the following is included in class oligochaeta ?
- (A) Cockroach (B) Frog (C) Earthworm (D) Pigeon
- (98) Frog belongs to which order ?
- (A) Orthoptera (B) Ophisthopora (C) Anura (D) Inferae
- (99) Earthworm belongs to which family ?
- (A) Banidae (B) Blattidae (C) Megascolecidae (D) Asteraceae
- (100) The organism from asteraceae family is
- (A) Frog (B) Cockroach (C) Earthworm (D) Sunflower
- (101) Which organism is from Glumiflorae order ?
- (A) Cockroach (B) Earthworm (C) Sunflower (D) Maize

Answers : (83-B), (84-C), (85-C), (86-A), (87-A), (88-B), (89-C), (90-A), (91-D), (92-D), (93-C), (94-C), (95-B), (96-A), (97-C), (98-C), (99-C), (100-D), (101-D)

- (102) Which statement is not correct for growth ?
- (A) Multicellular organisms increase by cell division.
(B) Due to cell division, growth occurs in tissue, organ or body.
(C) In animals growth takes place throughout life span.
(D) After birth living organisms increase volume of their body continuously.

- (103) Which statement does not fit with nomenclature ?
(A) Name is given to organisms through rules.
(B) One scientific name is not used for any other living organism.
(C) At the global level each living organism have two scientific names.
(D) Nomenclature of all living organisms is not possible for study.
- (104) Which statement is not proper for classification ?
(A) At the primary level living organisms are distributed in specific meaningful groups.
(B) Any living organism is classified on the basis of taxon arrangement.
(C) Some of them are based on characters which can be observed easily.
(D) Name is given by following the rules.
- (105) Which statement does not fit with DNA ?
(A) It is unit of adaptation.
(B) It is made up of nucleic acid.
(C) It has mysterious genetic codes to produce required chemicals for processes similar to parents.
(D) It inherits in characters produced by chemicals to perform activities like parents.
- (106) Which statement is proper for living organism ?
(A) Each living organism has characteristics like growth, development and reproduction.
(B) Each living organism can grow, can adopt and show locomotion.
(C) Each living organism shows growth, and development but they cannot reproduce.
(D) Each living organism shows locomotion and reproduction capacity but it is not necessary that it grows.
- (107) Which statement is related with death ?
(A) During an energy exchange some of the energy is lost in the form of heat.
(B) Maximum entropy occurs on all the levels of organization which stop functioning.
(C) Living organisms have their body organization mechanism or changes in behaviour simultaneously with environment.
(D) When anabolic processes occur more as compared to catabolic processes, then growth is observed.
- (108) Which statement is correct for taxon between family and species ?
(A) Reproductive progeny is formed by inter reproduction.
(B) Most related group of genera.
(C) Group of species of common ancestors.
(D) Group of families having inter relationship.
- (109) Which of the following characteristics of herbarium is incorrect ?
(A) To collect and care plant specimens.
(B) To collect and care plant books.
(C) To develop medicinal plants, attractive plants as well as rare plants.
(D) To collect plant photographs, slides, maps, etc.
- (110) Select the correct statement which is responsible to arise a new species ?
(A) When quantity of variation increases the new organisms differ from their original parental characters.
(B) DNA molecule inherits from parent to the next progeny.
(C) Members of the same species copulate with each other.
(D) Living organisms breed keeping environmental factors in centre.

- (111) Which of the following classification of cockroach is correct ?
 (A) Vertebrata - Amphibia - Anura - Ranidae - Rana - tigrina
 (B) Arthropoda - Insect - Orthoptera - Blattidae - Periplaneta - americana
 (C) Arthropoda - Insect - Opisthopora - Periplaneta - Rana - americana
 (D) Annelida - Oligochaeta - Blattidae - Periplaneta - americana
- (112) Which of the following statement is incorrect ?
 (A) Family : A group of genera which are closely related.
 (B) Class : A group of series.
 (C) Order : A group of interrelated families constitute.
 (D) Series : A group of orders.
- (113) Which of the following is mismatched pair ?
 (A) Classification : Systematic arrangement of living organisms.
 (B) Classification : Living organisms are meaningfully classified.
 (C) Species name : First letter in capital.
 (D) The author's name : Abbreviated form after species name.
- (114) Select the correct pair.
 (A) Megascolecidae : Anura
 (B) Periplaneta : Blattidae
 (C) Rana : Orthoptera
 (D) Helianthus : Glumiflorae
- (115) Select the correct pair :
 (A) Zea : Monocotyledons
 (B) Sunflower : Gymnosperms
 (C) Oligochaeta : Arthropoda
 (D) Orthoptera : Vertebrata
- (116) Select mismatched pair
 (A) Adaptation : Can sustain in their environment
 (B) Biosphere : Combined biomes of nature
 (C) Variation : Different characters within same species among individuals
 (D) Taxonomic hierarchy : Aggregation of taxa

Answers : (102-C), (103-A), (104-C), (105-A), (106-C), (107-B), (108-C), (109-C), (110-A), (111-B), (112-B), (113-C), (114-B), (115-A), (116-B)

• **A - Assertion (Statement), R - Reason**

- (A) Both A and R are true and R is correct explanation of A.
 (B) Both A and R are true and R is not correct explanation of A.
 (C) A - true, R - wrong.
 (D) A - wrong, R - true.
- (117) Statement A : Scientific names of plants are based on the principles of ICBN.
 Reason R : ICBN has sketch diagram, photographs and specimen copy for giving names to plants.
 (A) (B) (C) (D)
- (118) Statement A : Taxon and taxonomic category are same.
 Reason R : Taxa aggregate and forms a taxonomic hierarchy.
 (A) (B) (C) (D)

- (119) Statement A : Taxonomic hierarchy includes seven taxonomic category.
Reason R : To get specific information and specific place of each category they are divided into sub categories.
(A) (B) (C) (D)
- (120) Statement A : Death is meaningful event.
Reason R : Components of body further turn to environment due to death and number of living individual of each species remains limited.
(A) (B) (C) (D)
- (121) Statement A : If the ratio of anabolic process is more than catabolic process, growth occurs.
Reason R : Growth is an output of metabolism.
(A) (B) (C) (D)
- (122) Statement A : Members of the same species can not copulate.
Reason R : Zygote is produced as a result of fertilization.
(A) (B) (C) (D)
- (123) Statement A : Energy transformation takes place in metabolism in living organism.
Reason R : Organisms have to perform many biological activities.
(A) (B) (C) (D)
- (124) Statement A : Group of genera which are closely related is called family.
Reason R : Blattidae is family which contains pigeons and doves have different genera and species.
(A) (B) (C) (D)
- (125) Statement A : Binomial nomenclature method is given by Linneus.
Reason R : Linneus is known as father of taxonomy.
(A) (B) (C) (D)
- (126) Statement A : Differentiation and organogenesis takes place during growth.
Reason R : Number of cells increase during growth.
(A) (B) (C) (D)
- (127) Statement A : Organisms must be given two names.
Reason R : Species name must be written in small letters.
(A) (B) (C) (D)
- (128) Statement A : Each living organism possesses reproduction, growth, development, adaptation and death like abnormal characteristics.
Reason R : For each living organism the conversion of energy is essential.
(A) (B) (C) (D)
- (129) Statement A : To define organism concentration is made on specific characters of organisms.
Reason R : Reproduction, growth, development, awareness of environment, adaptation and death are abnormal characters of living organisms.
(A) (B) (C) (D)

- (130) Statement A : Different types of biochemical processes are collectively called metabolism.
Reason R : If the ratio of anabolic process is more than catabolic process, growth occurs.
(A) (B) (C) (D)
- (131) Statement A : The result of continuous disorders is called entropy.
Reason R : As a result of entropy free energy decreases and the efficiency decreases.
(A) (B) (C) (D)

Answers : (117-A), (118-D), (119-C), (120-A), (121-B), (122-D), (123-A), (124-C), (125-B), (126-D), (127-A), (128-B), (129-B), (130-C), (131-D)

- (132) Match the following :

Column - I (Common name) **Column - II** (Scientific name)

- | | | |
|---------------|----------------------------------|---|
| (a) Earthworm | (i) <i>Pariplaneta americana</i> | (A) a - v, b - iv, c - iii, d - ii, e - i |
| (b) Sunflower | (ii) <i>Rana tigrina</i> | (B) a - ii, b - i, c - iv, d - iii, e - v |
| (c) Frog | (iii) <i>Helianthus annuus</i> | (C) a - iv, b - iii, c - ii, d - v, e - i |
| (d) Maize | (iv) <i>Pheretima posthuma</i> | (D) a - iii, b - ii, c - v, d - i, e - iv |
| (e) Cockroach | (v) <i>Zea mays</i> | |

- (133) Match the following :

Column - I (Common name) **Column - II** (Family)

- | | | |
|---------------|--------------------|---|
| (a) Frog | (i) Asteraceae | (A) a - iii, b - iv, c - v, d - i, e - ii |
| (b) Cockroach | (ii) Poaceae | (B) a - iv, b - v, c - i, d - ii, e - iii |
| (c) Earthworm | (iii) Ranidae | (C) a - v, b - i, c - ii, d - iii, e - iv |
| (d) Sunflower | (iv) Blattidae | (D) a - i, b - ii, c - iii, d - iv, e - v |
| (e) Maize | (v) Megascloecidae | |

- (134) Match the following :

Column - I (Common name) **Column - II** (Series)

- | | | |
|---------------|------------------|---|
| (a) Frog | (i) Glumiflorae | (A) a - iii, b - iv, c - v, d - i, e - ii |
| (b) Cockroach | (ii) Opisthopora | (B) a - iv, b - v, c - i, d - ii, e - iii |
| (c) Earthworm | (iii) Anura | (C) a - v, b - i, c - ii, d - iii, e - iv |
| (d) Sunflower | (iv) Orthoptera | (D) a - i, b - ii, c - iii, d - iv, e - v |
| (e) Maize | (v) Infirae | |

- (135) Match the following :

Column - I (Taxon)

Column - II (Character)

- | | |
|---|--|
| (a) Species | (i) A group of interrelated families |
| (b) Genus | (ii) A group of genera which are closely related |
| (c) Series | (iii) Capable of interbreeding and giving rise to fertile offsprings |
| (d) Family | (iv) Group of orders |
| (e) Order | (v) A group of species having common ancestor |
| (A) a - v, b - iii, c - i, d - iv, e - ii | (B) a - i, b - ii, c - iii, d - v, e - iv |
| (C) a - ii, b - i, c - iii, d - iv, e - v | (D) a - iii, b - v, c - iv, d - ii, e - i |

(136) Match the following :

Column - I (Common name)

- (a) Aristotle
(b) Linneus
(c) Bantham and Hooker
(d) Huxley
(e) Whittaker
(A) a - iv, b - v, c - i, d - ii, e - iii
(C) a - i, b - ii, c - iii, d - iv, e - v

Column - II (Classification method)

- (i) Books for identification of plants
(ii) New systematics
(iii) Five kingdom classification
(iv) Classification of animals
(v) Binomial nomenclature
(B) a - v, b - i, c - ii, d - iii, e - iv
(D) a - ii, b - iii, c - iv, d - v, e - i

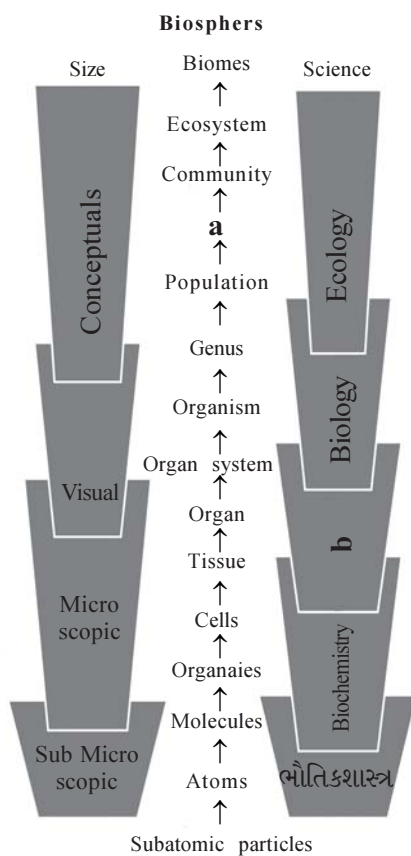
Answers : (132-C), (133-A), (134-A), (135-D), (136-A)

(137) Select proper option for given 'x' and 'y' in given diagram ?

- (A) 'x' - Subkingdom, 'y' - order
(B) 'x' - Subkingdom, 'y' - Subgenus
(C) 'x' - Phylum/Divison, 'y' - Family
(D) 'x' - Phylum/Divison, 'y' - Subgenus

Kingdom
-x-
Class
Order
-y-
Genus
Species

(138) Which part is labelled as 'a' and 'b' in given diagram ?



- (A) a - Population, b - Biology
(B) a - Community, b - Cytology
(C) a - Species, b - Cytology
(D) a - Community, b - Biology

Organisation level of livings

Answers : (137-C), (138-B)

• **Questions for NEET :**

- (139) What is correct for individuals within same species ?
(A) Live in same ecological life style (B) Live in same habitat
(C) Capable of interbreeding (D) Live always in different habitat
- (140) Main goal of biological system is
(A) Identification and arrangement of organisms based on their cell structure characters.
(B) Classification of organisms based on their morphology.
(C) To put living organism in their taxa and to establish interrelation among them.
(D) Classification of living organisms based on their evolutionary history and establishment of individual development at each level.
- (141) Species are considered as
(A) Real unit of classification decided by taxonomist.
(B) Basic unit of classification.
(C) Real basic the lowest units of classification.
(D) Artificial concept of human mind which cannot be defined in absolute terms.
- (142) The living organisms can be unexceptionally distinguished from the non-living thing on the basis of their ability for
(A) Interaction with the environment and progressive evolution
(B) Reproduction
(C) Growth and movement
(D) Responsiveness to touch
- (143) What is responsible for creation of new species ?
(A) Inbreeding hybridization (B) Variation
(C) Differentiative reproduction (D) None of these
- (144) Which of the following is mismatched pair ?
(A) *Zea mays* - Glumiflorae (B) *Helianthus annuus* - Asterales
(C) *Rana tigrina* - Ranidae (D) *Pheritima posthuma* - Megascolicidae
- (145) Which of the following is not included in microscopic level of organisation ?
(A) Organs (B) Tissue (C) Cells (D) Species
- (146) Which of the following category includes characters of group in living organisms ?
(A) Family (B) *Taxon* (C) Genus (D) Species
- (147) Which of the following is not related ?
(A) Opisthophora (B) Glumiflorae (C) Anura (D) Asteraceae

Answers : (139-C), (140-D), (141-C), (142-B), (143-B), (144-A), (145-D), (146-B), (147-D)