



Ravi Maths Tuition Centre

Time : 1 Mins

LIVING WORLD 1

Marks : 718

1. A living organism is unexceptionally differentiated from a non-living structure on the basis of
- a) reproduction b) growth and movement c) interaction with environment
d) responsiveness.

2. **Assertion:** Living organisms are self replicating, evolving and self regulating unit.

Reason: Living organisms are capable of responding to external stimuli.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

3. Taxonomic key is one of the taxonomic tools in the identification and classification of plants and animals. It is used in the preparation of
- a) monographs b) flora c) both (a) and (b) d) none of these.

4. Match column I with column II and select the correct option from the given codes.

Column I	Column II
A. Royal Botanical Garden Kew	(i) Lucknow
B. Indian Botanical Garden	(ii) England
C. National Botanical Research Institute	(iii) Howrah
D. Llyod Botanical Garden	(iv) Darjeeling

- a) A-(ii), B-(iii), C-(i), D-(iv) b) A-(i), B-(iii), C-(ii), D-(iv) c) A-(iv), B-(ii), C-(i), D-(iii)
d) A-(iv), B-(iii), C-(ii), D-(i)

5. Herbaria are useful in
- a) Understanding the distribution of plants b) Observing the habitat of plants
c) Identification of plants d) Indicating list of plants in a particular area

6. Read the following statements.

P: The taxonomic hierarchy for *Brassica campestris* can be written as

Plantae → Phanerogamae → Angiospermae → Dicotyledonae → Parietales
→ Brassicaceae → **Brassica** → **campestris**.

Q: Tautonym is the taxonomic designation used for certain plants having trinomial nomenclature.

R: A character present in an ancestral species and shared exclusively by its evolutionary descendants is referred to as synapomorphy.

S: Family Fabaceae is divided into three sub-families, i.e., Leguminosae, Mimosaceae and Caesalpiniaceae.

Which of the following combinations of above statements is correct?

a) P and Q b) P and R c) R and S d) P, R and S

7. The suffix '-oideae' is used for

a) tribe b) family c) class d) subfamily

8. **Assertion:** Consciousness is a defining property of living organisms.

Reason: Human being is the only organism that has self consciousness.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

9. **Assertion:** Order is a taxonomic category that includes one or more genera.

Reason: All the genera in an order have some similar features and co-related characters.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

10. The third name in trinomial nomenclature is

a) species b) subgenus c) subspecies d) ecotype

11. The taxonomic category below the level of family is

a) class b) species c) phylum d) genus

12. The internationally recognised binomial nomenclature was developed by Linnaeus in his book

a) Philosophia Botanica b) Historia Plantarum c) Species Plantarum
d) none of these

13. 'Aves' taxonomically represent a

a) family b) order c) class d) phylum

14. First step of taxonomy is

a) Characterisation b) Identification c) Nomenclature d) Classification

15. Select the incorrect statement out of the following.

a) All animals belonging to various phyla are assigned to the Kingdom Animalia.

b)

As we go higher from species to kingdom, number of common characteristics goes on increasing

c)

Different classes comprising fish, amphibians, reptiles, birds and mammals together constitute the Phylum Chordata

d)

Plant order Polymoniales includes the families like Solanaceae and Convolvulaceae based on the vegetative and floral characters

16. Which of the following sets does not contain defining characteristics of living organisms?

- a) Growth and reproduction b) Metabolism and cellular level of organisation
c) Response to stimuli and consciousness d) All of these

17. Read the following statements and select the correct ones

(i) Increase in mass and increase in number of individuals are twin characteristics of growth.

(ii) Metabolic reactions can be demonstrated outside the body in isolated cell-free systems.

(iii) 'Response to stimuli' is a defining property of living organisms.

- a) (i) and (ii) b) (ii) and (iii) c) (i) and (iii) d) (i), (ii) and (iii)

18. In a herbarium, sheets are arranged according to

- a) Regionally accepted system of classification
b) Universally accepted system of classification
c) Nationally accepted system of classification
d) Locally accepted system of classification

19. Plants were given Latin names because it is a

- a) simple language b) common language c) dead language d) none of these.

20. Botanical gardens mainly serve the purpose of providing

- a) beautiful area for recreation b) reservoir for tropical plan
c) ex situ conservation of germplasm d) natural habitat for wildlife.

21. Botanical gardens and zoological parks have

- a) collection of endemic living species only b) collection of exotic living species only
c) collection of endemic and exotic living species
d) collection of only local plants and animals

22. Taxonomy comprises

- a) Identification b) Classification c) Nomenclature d) All of these

23. **Assertion:** New names in binomial nomenclature are derived from Latin or are latinised.

Reason: Latin is a technical language.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

- c) If assertion is true but reason is false. d) If both assertion and reason are false.

24. Study of principles and procedures of classification of organisms is

- a) Classification b) Taxonomy c) Nomenclature d) Grouping
25. Which of the following statements regarding the response of living organisms to external stimuli is correct?
- a) The external environmental stimuli can be physical, chemical or biological.
b)
All organisms, from the prokaryotes to the most complex eukaryotes can sense and respond to environmental stimuli.
c)
Consciousness and response to external stimuli is the defining property of living organisms
d) All of these
26. **Assertion:** Living organisms show internal as well as external growth.
Reason: Living organisms undergo the process known as accretion
- a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.
27. In which order, will you place gorilla?
a) Carnivora b) Diptera c) Sapindales d) Primata
28. Potato, tomato, brinjal differ in this taxon
a) Species b) Genus c) Family d) Order
29. Which one of the following books was contributed by Linnaeus
a) Systema Naturae b) Historia Plantarum c) Historia Naturalis d) All of these
30. Tanvi bought ten food items from the supermarket, which are wheat, bananas, mushrooms, onions, **Porphyra** (Laver), Kelps, pine seeds, **Sphagnum** moss, lady's fingers and potatoes. Based on hierarchical classification, how many different phyla/divisions do these items belong to?
a) 3 b) 4 c) 5 d) 6
31. National Zoological Park is situated at
a) Delhi b) Lucknow c) Jaipur d) Darjeeling
32. Who wrote "**Species Plantarum**" and provided a basis for the classification of plants?
a) Carolus Linnaeus b) Charles Darwin c) Carolus Linnaeus d) Charles Darwin
33. Match column I with column II and select the correct option from the codes given below.

Column I	Column II
A. Ecology	(i) Relationships of organisms and environment
B. Herbarium	(ii) Original specimen cited by an author
C. Holotype	(iii) A hierarchial unit
D. Taxon	(iv) Collection of wild and domestic plants

- a) A-(i), B-(ii), C-(iii), D-(iv) b) A-(i), B-(ii), C-(iv), D-(iii) c) A-(i), B-(iv), C-(ii), D-(iii)
d) A-(iv), B-(ii), C-(iii), D-(i)

34. Which among the following is INCORRECT with respect to the universal rules of biological nomenclature?

a)

The first word in a biological name represents the genus while the second name denotes the species

b)

The specific epithet starts with a capital letter while the generic epithet starts with a small letter. It can be illustrated with the example of *mangifera indica*

c) Biological names are either derived from Latin language or Latinised.

d)

Both the words in a biological name, when handwritten are separately underlined or printed in italics to indicate their Latin origin.

35. Amongst all the kingdoms, the only taxon that exists in nature as a biologically cohesive unit is the

- a) species b) genus c) phylum or division d) kingdom

36. Study the following statements and select the correct ones.

(i) Herbarium is a store house of collected plant specimens that are dried, pressed and preserved on sheets.

(ii) Flora provides the index to the plant species found in a particular area.

(iii) Monographs contain information about particular taxon.

- a) (i) and (ii) b) (ii) and (iii) c) (i) and (iii) d) (i), (ii) and (iii)

37. The label of a herbarium sheet does not carry information on _____ .

- a) Date of collection b) Name of collector c) Local names d) Height of the plant.

38. An English naturalist, who wrote the book '**Historia Generalis Plantarum**' and introduced the word 'species' was

- a) Theophrastus b) John Ray c) Cuvier d) Lamarck

39. Study the following statements regarding the preparation of herbarium sheets.

(i) Plant should be collected in flowering stage.

(ii) Every detail regarding the plant such as locality, ecological conditions, vegetative and floral characters, etc. should be noted.

(iii) Plants are evenly pressed by unfolding all the plant parts between blotting papers (or newspapers) with the help of plant pressers.

(iv) Blotting papers need not be changed until the plant gets dried.

(v) After drying, the plant specimen is carefully mounted! pasted on the herbarium sheets.

(vi) The herbarium sheet is labelled on the lower right hand corner representing the number of plant specimen, date of collection, etc.

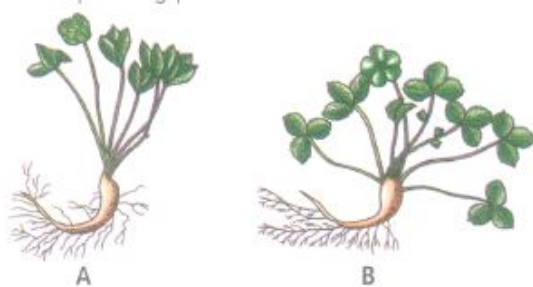
Which of the above statements is/are not correct?

- a) (i) only b) (iv) only c) (i) and (iv) d) (iii) and (iv)

40. Which term can be used for any taxonomic rank?

- a) Class b) Taxon c) Family d) Cohort
41. Carolus Linnaeus belonged to
a) France b) Germany c) Sweden d) Holland.
42. The fundamental taxonomic category is (basic unit is)
a) Family b) Class c) Genus d) Species
43. **Assertion:** In binomial nomenclature, both words are separately underlined.
Reason: Underlining indicates their Latin origin.
a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.
44. The taxonomic unit 'Phylum' in the classification of animals is equivalent to which hierarchical level in classification of plants?
a) Class b) Order c) Division d) Family
45. Which of the following is the correct representation of organisation levels in living beings?
a) Subcellular → Cellular → Individual → Community → Population
b)
Atomic → Molecular → Subcellular → Cellular → Tissue → Organ system → Individual
c)
Individual → Population → Organ system → Tissue → Cellular → Molecular → Atomic
d) Atomic → Molecular → Tissue → Individual → Ecosystem → Community
46. The statement 'nothing lives forever, yet life continues, illustrates the role of
a) embryogenesis b) morphogenesis c) replication d) reproduction.
47. The basic unit upon which the systems of classification are based is
a) species b) genus c) order d) family
48. Angiosperms have dominated the land flora primarily because of their _____.
a) Power of adaptability in diverse habitat
b) Property of producing large number of seeds c) Nature of self Pollination
d) Domestication by man
49. Mango belongs to this order
a) Anacardiales b) Poales c) Sapindales d) Polymoniales
50. According to binomial nomenclature, two words used for naming a plant or animal are
a) Family and genus b) Species and family c) Class and family
d) Genus and species
51. Which one of the following is not a correct statement?

- a) A museum has collection of photographs of plants and animals.
 - b) Botanical gardens have collection of living plants for reference.
 - c) Herbarium has dried, pressed and preserved plant specimens.
 - d) Key is taxonomic aid for identification of specimens.
52. Which of the following categories possesses maximum number of related characters?
a) Order b) Phylum c) Class d) Species
53. Arboretum is a part of botanical gardens where
a) bonsai are made b) beautification is done c) palms are grown
d) big trees are cultivated in the form of forests
54. Which of the following organisms does not reproduce?
a) Mule b) Worker bee c) Infertile human female d) All of these
55. The earliest classifications were based on
a) Reproduction of plants b) Uses of plants c) Diversity of plants
d) Evolutionary relationship of plants
56. A pair of contrasting characters in keys is called
a) Doublet b) Duplet c) Couplet d) Triplet
57. Founder of binomial nomenclature was
a) Linnaeus b) Mendel c) Darwin d) Lamarck.
58. _____ are useful in providing information for identification of names of species found in an area.
a) Flora b) Manuals c) Monographs d) Catalogues
59. Which of the following figures represents the correct method of pressing plants to form herbarium sheets?



- a) Figure A as the plant parts are folded.
 - b) Figure B as every plant part is unfolded.
 - c) Both figures A and B as folding or unfolding does not matter
 - d) None of these
60. *Mangifera* is a
a) variety b) genus c) species d) orders
61. First life on earth was _____.
a) Cyanobacteria b) Chemoheterotrophs c) Autotrophs d) Photoautotrophs
62. The scientific name of banyan is written as ***Ficus benghalensis*** L. Which of the following statements is correct regarding this?
a) Letter L. signifies Latin language
b) The name should be written reverse with ***benghalensis*** preceding ***Ficus***
c) Letter L. signifies the taxonomist Linnaeus. d) ***benghalensis*** is a generic name.

63. Homeostasis is _____ .
 a) Tendency to change with change in environment b) Tendency to resist change
 c) Disturbance in regulatory control
 d) Plants and animals extracts used in homeopathy
64. Genus represents
 a) an individual plant or animal b) a collection of plants or animals
 c) group of closely related species of plants or animals d) none of these.
65. Which of the following 'suffixes' used for units of classification in plants indicates a taxonomic category of 'family'?
 a) -Ales b) -Onae c) -Aceae d) -Ae
66. Basic unit or smallest taxon of classification is
 a) species b) kingdom c) family d) variety
67. Choose the correct expression
 a) a group of related genera - Family b) a group of related species - order
 c) a group of related families - class d) a group of related orders - genus
68. Match column I with column II and select the correct option from the codes given below.
- | Column I | Column II |
|-------------|------------------------|
| A. Planaria | (i) Binary fission |
| B. Fungi | (ii) Asexual spore |
| C. Yeast | (iii) Budding |
| D. Amoeba | (iv) True regeneration |
| | (v) Fragmentation |
- a) A-(i), B-(ii), C-(iii), D-(iv) b) A-(iv), B-(ii), (v), C-(iii), D-(i) c) A-(ii), B-(v). C-(i), D-(iv)
 d) A-(v). B-(ii), (i), C-(iii), D-(iv)
69. Scientific names to the plants are given based on the principles provided by
 a) BSI b) ICBN c) IUB d) ICZN
70. Which one of the following organisms is scientifically correctly named, correctly printed according to the International Rules of Nomenclature and correctly described?
 a) *Musca domestica* - The common house lizard, a reptile
 b)
Plasmodium falciparum - A protozoan pathogen causing the most serious type of malaria.
 c) *Felis tigris* - The Indian tiger, well protected in Gir forests
 d)
E.coli - Full name *Entamoeba coli* a commonly occurring bacterium in human intestine.
71. Which of the following statements regarding the universal rules of biological nomenclature is incorrect?

a) Biological names are generally in Latin and written in italics.

b)

The first word in a biological name represents the genus while the second component denotes the species.

c)

Both the words in a biological name, when handwritten, are separately underlined, or printed in italics to indicate their Latin origin.

d)

The specific epithet starts with a capital letter while the generic epithet starts with a small letter. It can be illustrated with the example of **Mangifera Indica**

72. Lowest and highest taxonomic categories are respectively

a) Division, species b) Species, division c) Species, kingdom d) Phylum, genus

73. **Assertion:** Systematics is defined as the science of diversity of organisms in evolutionary context.

Reason: Systematics include interrelationship between organisms

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

74. A collection of species which bear a close resemblance to one another in the morphological characters of the floral parts is known as

a) family b) variety c) genus d) division.

75. 'Key' is a taxonomical aid used for the identification of organisms. Each statement in key is called a _____.

a) couplet b) lead c) both (a) and (b) d) none of these

76. In a taxonomic hierarchy, family is interpolated between

a) kingdom and class b) class and order c) order and genus d) class and genus

77. Which of the following serves as a quick referral systems in taxonomical studies?

a) Museum b) Zoological park c) Herbarium d) Botanical garden

78. In a taxonomic hierarchy, genus is interpolated between

a) order and species b) family and species. c) kingdom and class
d) phylum and order

79. Select the mismatched pair.

a) *Panthera leo* - Belongs to Class Mammalia

b) *Musca domestica* - The common house lizard, a reptile

c) *Entamoeba coli* - Commonly occurring protozoan in human intestine

d) *Solanum tuberosum* - A dicotyledonous plant

80. In biological terminology, a group of similar organisms which are capable of interbreeding and producing fertile offsprings is called

a) species b) genus c) tribe d) family.

81. **Assertion:** All organisms reproduce for perpetuation of a population.

Reason: Reproduction is an all inclusive characteristic of living organisms.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

82. Match column I with column II and select the correct option from the given codes.

Column I	Column II
A. John Ray	(i) Gave the concept of new systematics
B. C. Linnaeus	(ii) First described species as a unit of classification
C. Aristotle	(iii) Father of Zoology
D. Julian Huxley	(iv) Introduced binomial nomenclature

a) A-(i), B-(ii),C-(iii), D-(iv) b) A-(iv), B-(ii),C-(iii), D-(i) c) A-(ii), B-(iii),C-(i), D-(iv)
d) A-(ii), B-(iv),C-(iii), D-(i)

83. In the binomial system of taxonomy, developed during the 18th century by C. Linnaeus, the second word of an organism's biological name represents

a) species b) genus c) race d) family.

84. Which of the following statements is incorrect?

a) Term 'Nothospecies' refers to the naturally occurring interspecific hybrids.

b)

As the species do not change with time, therefore they are considered as static groups.

c)

Metabolism and response to external stimuli are considered as the defining properties of living organisms.

d)

Hibiscus rosa - sinensis belongs to the same family to which **Althaea rosea** and **Gossypium hirsutum** belong to.

85. Two animals belong to the same kingdom but different classes. They may belong to the same

a) phylum b) order c) division d) species

86. Which of the following taxonomic categories includes one or more related orders?

a) Phylum/Division b) Genus c) Family d) Class

87. **Assertion:** Metabolism refers to the sum of chemical reactions that occur within living organisms.

Reason: Metabolic reactions occur simultaneously inside living organisms

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b) If both assertion and reason are true but reason is not the correct explanation of

c) If assertion is true but reason is false. d) If both assertion and reason are false.

88. Match column I with column II and select the correct option from the codes given below.

Column I	Column II
A. Botanical garden	(i) Preserved plant specimens
B. Zoological park	(ii) Preserved plant and animal specimens
C. Museum	(iii) Living plants
D. Herbarium	(iv) Living wild animals

- a) A-(i), B-(ii), C-(iii), D-(iv) b) A-(ii), B-(iv), C-(ii), D-(i) c) A-(iii), B-(iv), C-(i), D-(ii)
d) A-(i), B-(ii), C-(iv), D-(iii)

89. In the zoological name of fish *Catla catla*, the specific name is identical with the generic name, thus it is an example of

- a) antonym b) tautonym c) synonym d) homonym

90. Select the correct option for biological names.

- a) They are binomial b) They are descriptive c) They are universal d) All of these

91. The name of a plant order ends with

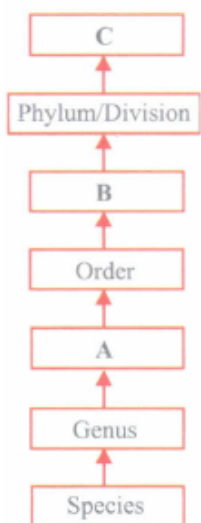
- a) -aceae b) -ales c) -idae d) -ae

92. The plants growing in an area surrounded by a geographical or political boundary will be included in

- a) fauna b) aquatic ecosystem c) flora d) terrestrial ecosystem

93. The given flow chart represents the hierarchy of various taxonomic categories. Identify the missing categories (A, B and C) and select the correct statements regarding these.

- (i) A is the taxonomic category which contains a number of related genera.
(ii) Examples of category B are Monocotyledonae, Dicotyledonae, Mammalia, etc.
(iii) C represents the basic unit of taxonomic hierarchy.
(iv) Examples of category C are Fungi, Monera, Protista, etc.



- a) (i) and (ii) b) (iii) and (iv) c) (i), (ii) and (iv) d) (i), (ii), (iii) and (iv)

94. Which one of the following is not a category?

- a) Phylum b) Species c) Class d) Glumaceae

95. Match column I with column II and select the correct option from the codes given below

Column I	Column II
A. Binomial nomenclature	(i) Hippocrates
B. The Darwin of the 20 th century	(ii) Ernst Mayr
C. Father of botany	(iii) Linnaeus
D. Father of medicine	(iv) Theophrastus

- a) A-(iii), B-(ii), C-(iv), D-(i) b) A-(iii), B-(ii), C-(i), D-(iv) c) A-(i), B-(ii), C-(iii), D-(iv)
d) A-(ii), B-(iii), C(iv), D-(i)
96. In a taxonomic hierarchy, from species to kingdom
a) The number of common characters decrease b) Complexity decreases
c) More common characters are shared between members of higher taxa
d) Similarities between plants increas
97. Linnaeus described 5900 species of plants in his book _____ (1753) and 4326 species of animals in his book _____ (1758).
a) Philosophia Botanica, Genera Plantarum b) Historia Naturalis, Species Plantarum
c) Systema Naturae, Species Plantarum d) Species Plantarum, Systema Naturae
98. Which taxonomic aid gives comprehensive account of complete compiled information of a genus or family at a particular time?
a) Taxonomic key b) Herbarium c) Monograph d) All of these
99. Which of the following represents the correct sequence of various taxonomic categories?
a) Class-Phylum- Iribe-Order-Family-Genus- Species
b) Division-Class-Family-Tribe-Order-Genus- Species
c) Division-Class-Order-Family-Tribe-Genus- Species
d) Phylum-Order-Class-Tribe-Family-Genus-Species
100. Read the following statements and select the correct option.
Statement 1: Zoological parks are the places where wild animals are kept in protected environments under human care and which enable us to learn about their food habits and behaviour.
Statement 2: Adequate arrangements for the treatment, medication, regular check up and pathological investigations are absolutely necessary to be made for the health, care, and upkeep of the animals
a) Both statements 1 and 2 are correct.
b) Statement 1 is correct but statement 2 is incorrect
c) Statement 1 is incorrect but statement 2 is correct.
d) Both statements 1 and 2 are incorrect
101. Floral features are commonly used for identification of angiosperms because
a) reproductive parts are more conservative b) flowers can be safely preserved
c) flowers are nice to work with d) flowers have various colours and scents.
102. Zoological parks
a) Have preserved animal specimens b) Have wild mammals only
c) Don't include birds d) Are useful in identification of animals

103. As we go from species to kingdom in a taxonomic hierarchy, the number of common characteristics
a) will decrease b) will increase c) remain same d) may increase or decrease
104. Botanical gardens have
a) Living plants and animals for reference b) Collection of living plants
c) Preserved plant specimens d) Living and preserved plants
105. Classification systems have many advantages. Which of the following is not a goal of biological classification?
a) To depict convergent evolution b) To clarify relationships among organisms
c) To help us remember organisms and their traits d) To identify and name organisms
106. The main objective of plant taxonomy is
a) to study the world's flora b) to provide a method for identification and nomenclature
c) to provide Latin 'scientific' names for every group of plants in the world
d) all of these.
107. Employment of hereditary principles in the improvement of human race is _____.
a) Euthenics b) Eugenics c) Euphenics d) Ethnology
108. A couplet in a key is
a) each statement in the key b) contrasting characters in a pair
c) rejection of a statement d) none of these.
109. Select the correctly written botanical/zoological name.
a) Homo Sapiens b) Panthera tigris c) Pisum sativum d) Mangifera Indica
110. **Assertion:** Classification is necessary to study all living organisms.
Reason: In classification, individuals are grouped into categories.
a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.
111. The main purpose for the classification of organisms is to
a) study geography b) locate plants and animals
c) establish relationships amongst organisms d) study evolution
112. Mammals, animals and dogs represents
a) same taxa at same levels b) same taxa at different levels
c) Different taxa at same level d) Different taxa at different levels
113. Genus is a group of similar and related
a) classes b) phyla c) species d) orders.
114. Identify the correct sequence of taxonomi categories

- a) Species → phylum → class → kingdom b) Genus → species → order → kingdom
 c) Species → Genus → order → class d) Division c → Family → order → e Genus

115. Read the following statements and select the correct option.

Statement 1: Reproduction cannot be considered as defining property of living organisms.

Statement 2: There are many living organisms which do not reproduce, e.g., mules, worker bees, etc.

- a) Statement 1 is incorrect but statement 2 is correct
 b) Both statements 1 and 2 are incorrect c) Both statements 1 and 2 are correct
 d) Statement 1 is correct but statement 2 is incorrect.

116. Pedology is science of _____.

- a) Earth b) Soil c) Diseases d) Pollution

117. In plants, growth occurs _____ whereas in animals, it occurs _____.

- a) only upto a certain age, continuously b) continuously, only upto a certain age
 c) continuously, continuously d) only upto a certain age, only upto a certain age

118. Which of the following represents defining feature of living organisms?

- a) Growth b) Reproduction c) Metabolism d) Locomotion

119. Related genera belong to the same

- a) species b) variety c) family d) breed

120. Two characteristics of growth are increase in mass and number of cells. Growth

- a) occurs in animals by cell division throughout their life span
 b) Is seen in plants by increase in number of cells upto a certain age
 c)

And reproduction are mutually exclusive events in majority of higher animals and plants

- d) Exhibited by non-living objects occurs from inside.

121. The living organisms can be unexceptionally distinguished from the non-living things on the basis of their ability for

- a) Responsiveness to touch
 b) Interaction with the environment and progressive evolution c) Reproduction
 d) Growth and movement

122. Read the following statements with one or two blanks in each one of them.

(i) A genus containing more than one species is called _____ genus, e.g., _____

(ii) _____ is a collection of dried, pressed and preserved plants mounted on _____ sheets, properly labelled, systematically arranged and available for reference study.

(iii) Living fossils are ancient organisms persisting in modern times _____ gradual morphological changes.

(iv) A _____ is comprehensive treatise of a taxonomic group, generally, a genus or a family, providing all taxonomic data related to that group.

Which of the following correctly fills any two of the above statements?

- a) (i) monotypic, **Homo**; (ii) Herbarium, paper b) (ii) Manual, paper; (iii) with
c) (iii) without; (iv) Monograph d) (i) polytypic, **Solanum**; (iv) Monograph

123. Study the following table which shows different organisms with their taxonomic categories.

Common name	Family	Order	Class	Phylum/Division
Man	Hominidae	Primata	Mammalia	A
Housefly	Muscidae	Diptera	B	Arthropoda
Mango	C	Sapindales	Dicotyledonae	Angiospermae
Wheat	Poaceae	Poales	D	Angiospermae

Select the correct option for A, B, C and D.

a)

A	B	C	D
Chordata	Insecta	Anacardiaceae	Monocotyledonae

b)

A	B	C	D
Animalia	Arachnida	Anacardiaceae	Monocotyledonae

c)

A	B	C	D
Chordata	Arachnida	Polygonaceae	Monocotyledonae

d)

A	B	C	D
Non-chordata	Insecta	Anacardiaceae	Dicotyledonae

124. The term 'taxon' is used for

- a) the ranks of species and genus b) the ranks up to phylum
c) the species epithet only d) any rank of taxonomic hierarchy

125. Organisms which obtain energy by the oxidation of reduced inorganic compounds are called _____.

- a) Photoautotrophs b) Chemoautotrophs c) Saprozoic d) Coproheterotrophs

126. Which is the odd one in the following series?

- a) sapiens b) americana c) rotundus d) **Hemidactylus**

127. It is much easier for a small animal to run uphill than for a large animal, because _____.

- a) It is easier to carry a small body weight.
b) Smaller animals have a higher metabolic rate.
c) Small animals have a lower O₂ requirement.
d) The efficiency of muscles in large animals is less than in the small animals

128. Which one is exclusive characteristic of living beings?

- a) Increase in mass from inside b) Increase in mass both from outside and inside
c) Perception of events happening in environment and their memory
d) Isolated metabolic reactions occurring in vitro.

129. _____ is the branch of science dealing with identification, nomenclature and classification of organisms.
a) Morphology b) Anatomy c) Ecology d) Taxonomy
130. The taxon which includes related families is
a) Order b) Class c) Genus d) Division
131. Mark the Incorrect statement w.r.t. museums
a) Specimens are preserved in preservative b) insects are kept in insect boxes
c) Live animals are kept in protected environments
d) Specimens are also be preserved as dry specimens
132. Two organisms are present in the same class but not in the same family. They may belong to same
a) genus b) species c) variety d) order
133. _____ is a taxonomic aid which contains the actual account of habitat and distribution of plants of a given area and also provides the index to the plant species found in a particular area.
a) Flora b) Key c) Monograph d) Manual
134. **Assertion:** Monographs are useful in providing Information for identification of names of all genera only.
Reason: Monographs contain information of more than one taxon.
a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is d) If both assertion and reason are false.
135. Which of the following taxonomic categories includes all the others?
a) Family b) Order c) Genus d) Species
136. A true species consists of a population which is
a) sharing the same niche b) interbreeding c) feeding over the same food
d) geographically isolated
137. All living organisms are linked to one another because
a) they have common genetic material of the same type
b) they share common genetic material but to varying degrees
c) all have common cellular organisation d) all of the above.
138. Which one of the following statements is incorrect?
a) indica, tuberosum and lea represent the specific epithets.
b) Physalia, Apis and Helianthus represent the generic epithets
c) Monocotyledonae and Dicotyledonae are the two classes of division Angiospermae.
d) Phylum Chordata is the largest phylum of Kingdom Animalia.
139. Incorrect statement in relation to taxonomic key is

- a) Based on set of contrasting characters b) Generally analytical in nature
 - c) Same taxonomic key can be used for different taxonomic categories
 - d) Used for the identification of both plants and animals
140. The term 'systematics' refers to
- a) identification and study of organ systems
 - b) identification and preservation of plants and animals
 - c) diversity of kinds of organisms and their relationship
 - d) study of habitats of organisms and their classification.
141. Taxon ending with a suffix ales
- a) Species b) Order c) Taxonomy d) Classes
142. A taxonomic category refers to
- a) the basic unit of classification b) a rank or level in a taxonomic hierarchy
 - c) a group of related organisms able to interbreed
 - d) a group of related organisms but unable to interbreed freely
143. Biological organisation starts with _____ .
- a) Cellular level b) Organismic level c) Atomic level
 - d) Submicroscopic molecular level
144. Catalogues
- a) list or register containing names of all the species found in a particular place
 - b) booklet containing all the characters and their alternates which are helpful in identifying all the taxa
 - c) handy book containing instruction of a species
 - d) treatise having all informations about a particular taxon.
145. Information on anyone taxon is found in
- a) Manuals b) Museums c) Herbarium d) Monographs
146. Which is less general in characters as compared to genus?
- a) Family b) Class c) Division d) Species
147. **Assertion:** Cats and dogs have some similarities.
Reason: Cats and dogs belong to the same Family Canidae.
- a) If both assertion and reason are true and reason is the correct explanation of assertion.
 - b) If both assertion and reason are true but reason is not the correct explanation of assertion.
 - c) If assertion is true but reason is false. d) If both assertion and reason are false.
148. What is true for individuals of same species?
- a) Live in same niche b) Live in same habitat c) Interbreeding
 - d) Live in different habitat

149. The most convenient way for easy identification of plants and animals by applying diagnostic features is use of
a) botanical gardens b) herbaria c) museums d) taxonomic keys
150. ICBN is
a) International Code of Biological Naming
b) International Code for Botanical Nomenclature
c) International Class of Biological Nomenclature
d) International Classification of Biological Nomenclature
151. Study the following statements regarding significance of botanical gardens and select the incorrect one.
a) These help in growing important plants of local flora and keeping their record.
b) These help in providing living plant material for research work.
c) These help in growing and maintaining rare and endangered plants
d) None of these
152. Which of the following is a defining characteristic of living organisms?
a) Growth b) Ability to make sound c) Reproduction
d) Response to external stimuli
153. Which of the following groups consists of organisms which multiply by fragmentation?
a) Earthworm, Amoeba, fungi b) Earthworm, fungi, bacteria
c) Fungi, filamentous algae, protonema of mosses d) Amoeba, Hydra, bacteria
154. **Assertion:** System of providing name with two components is called binomial nomenclature.
Reason: Each name consists first of a specific name and second of a generic name.
a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.
155. Which of the following statements is incorrect regarding the modern taxonomy?
a) It deals with biological species
b) It is based on the study of all types of variations in the species.
c) Speciation is considered to be static. d) It has a biosystematic concept.
156. In taxonomic hierarchy, cats are placed under the Genus
a) Felis b) Panthera c) Canis d) none of these
157. Select the incorrect statement with respect to the category, 'genus'.
a) It is a group or assemblage of related species.
b) A genus essentially possesses more than one number of species

c)

Lion, Tiger, Leopard, Jaguar are closely related species which have been placed in the genus *Panthera* and are respectively named as *Panthera leo*, *P. tigris*, *P. pardus* and *P. onca*.

d) *Solanum*, *Penicillium*, *Withania* and *Canis* are the examples of genera.

158. Which one of the following aspects is an exclusive characteristic of living things?

- a) Isolated metabolic reactions occur in vitro b) Increase in mass from inside only
- c) Perception of events happening in the environment and their memory
- d) Increase in mass by accumulation of material both on surface as well as internally.

159. Phenetic classification is based on _____ .

- a) Sexual characteristics b) The ancestral lineage of existing organisms
- c) Observable characteristics of existing organisms
- d) Dendograms based on DNA characteristics

160. Quick referral systems in taxonomic studies are?

- a) Botanical garden b) Herbaria c) Monograph d) manual

161. The ascending or descending arrangement of taxonomic categories is called as

- a) classification b) taxonomy c) hierarchy d) key.

162. Most names in biological nomenclature of living organisms are taken from which language?

- a) Hindi b) Latin c) German d) French

163. Which of the following characters are mainly considered for declaring a new plant species?

- a) Characters of endosperm b) Anatomical characters c) Physiological characters
- d) Floral characters

164. Museums have

- a) Collection of living organisms b) Dried and preserved plant specimens only
- c) Animals kept in their natural habitats d) Preserved plant and animals specimens

165. Study of all living organisms is made possible by this aspect of taxonomy

- a) Identification b) Systematics c) Classification d) Nomenclature

166. Read the following statements regarding biological museums

- (i) Biological museums are generally set up in educational institutes such as schools and colleges.
- (ii) Museums have collections of preserved plant and animal specimens for study and reference.
- (iii) Specimens are preserved in the containers or jars in preservative solutions.
- (iv) Insects are preserved in insect boxes after collecting, killing and pinning.
- (v) Larger animals like birds and mammals are usually stuffed and preserved.
- (vi) Skeletons of mammals are not allowed to be kept in museums.

Which of the above statements is/are not correct?

- a) (ii) and (iii) b) (i) and (vi) c) (v) only d) (vi) only

167. What is true for photolithotrops?

- a) Obtain energy from radiations and hydrogen from organic compounds
- b) Obtain energy from radiations and hydrogen from inorganic compounds
- c) Obtain energy from organic compounds
- d) Obtain energy from inorganic compounds

168. Nomenclature is governed by certain universal rules. Which of the following is contrary to the rules of nomenclature?

- a) The first word in a biological name represents the genus name and the second is a specific epithet.
- b) The names are written in Latin and are italicized.
- c) When written by hand, the names are to be underlined.
- d) Biological names can be written in any language.

169. Which one of the following animals is correctly matched with its particular taxonomic category?

- a) Tiger - tigris, species
- b) Cuttlefish - Mollusca, class
- c) Humans - primate, family
- d) Housefly - Musca, order

170. Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses?

- a) Mode of Nutrition
- b) Multiplication by fragmentation
- c) Diplontic life cycle
- d) Members of kingdom Plantae

171. Which of the following options represents the correct classification for the given animal?



a)

Phylum	Class	Order	Family	Genus	Species
Chordata	Vertebrata	Chiroptera	Felidae	Canis	tigris

b)

Phylum	Class	Order	Family	Genus	Species
Chordata	Mammalia	Carnivora	Felidae	Panthera	tigris

c)

Phylum	Class	Order	Family	Genus	Species
Vertebrata	Mammalia	Carnivora	Felidae	Panthera	tigris

d)

Phylum	Class	Order	Family	Genus	Species
Mammalia	Felidae	Carnivora	Felidae	Panthera	leo

172. Match the items given in column I with those in column II and select the correct option given below:

Column I	Column II
A. Herbarium	(i) It is a place having a collection of preserved plants and animals.

B. Key	(ii) A list that enumerates methodically all the species found in an area with brief description.
C. Museum	(iii) Is a place where dried and pressed plants specimens mounted on sheets are kept
D. Catalogue	(iv) A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

a)	b)	c)	d)
A B C D	A B C D	A B C D	A B C D
(i)(iv)(iii)(ii)	(iii)(iv)(i)(ii)	(ii)(iv)(iii)(i)	(iii)(ii)(i)(iv)

173. A 'type' is one particular specimen (or a group of specimens) of an organism to which the scientific name of that organism is formally attached. Match column I (type) with column II (description) and select the correct option from the codes given below

Column I	Column II
A. Holotype	(i) A specimen cited with original description other than the holotype or isotype
B. Isotype	(ii) A duplicate of the holotype
C. Paratype	(iii) A specimen designated in the original description
D. Lectotype	(iv) A specimen selected from original material to serve as nomenclatural type when the holotype was not designated

- a) A-(iii), B-(ii), C-(i), D-(iv) b) A-(iii), B-(i), C-(ii), D-(iv) c) A-(iii), B-(ii), C-(iv), D-(i)
d) A-(iii), B-(iv), C-(i), D-(ii)

174. **Assertion:** Species is a group of individuals with fundamental similarities.

Reason: Indica, leo, tuberosum represent such group of individuals.

- a)
If both assertion and reason are true and reason is the correct explanation of assertion.
b)
If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.

175. Match the following

Column I	Column II
(a) Musca	(i) Anacardiaceae, Sapindales
(b) Homo	(ii) Hominidae, Primata
(c) Triticum	(iii) Poaceae, Poales
(d) Mangifera	(iv) Diptera, Insecta

- a) a(iv), b(i), c(ii), d(iii) b) a(iv), b(iii), c(i), d(ii) c) a(iv), b(ii), c(iii), d(i)
d) a(ii), b(iv), c(i), d(iii)

176. **Assertion:** Keys are analytical in nature.

Reason: Keys are based on couplet.

a)

If both assertion and reason are true and reason is the correct explanation of assertion.

b)

If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

177. Which two of the below given points are known as the twin characteristics of growth?

(i) Increase in mass

(ii) Increase in number of individuals

(iii) Cellular organisation

(iv) Cellular differentiation

a) (i) and (ii) b) (i) and (iii) c) (ii) and (iii) d) (iii) and (iv)

178. Living organisms show all the following properties, except

a) Self replication b) Evolution c) Self regulation

d) High specific gravity and extrinsic growth

179. Standardization of names helps in

a) Providing one name for each organism

b)

Enabling people to arrive at the same name for a particular organism all over the world

c)

Ensuring that a name for an organism has not been used for any other known organism

d) All of these

180. A. Families are characterized on basis of both vegetative and reproductive features of plants

B. Polymoniales includes Solanaceae and Convolvulaceae mainly on the basis of floral characters

a) Only A is correct b) Only B is correct c) Both A & B correct

d) Both A & B are incorrect

181. Select the correct classification for the given plant.



a)

Division	Class	Order	Family
Plantae	Angiospermae	Asterales	Asteraceae

b)

Division	Class	Order	Family
Angiospermae	Dicotyledonae	Asterales	Asteraceae

c)

Division	Class	Order	Family
Angiospermae	Dicotyledonae	Polymoniales	Compositae

d)

Division	Class	Order	Family
Dicotyledonae	Asteraceae	Asterales	Compositae