



QB365 Learning App

Time : 60 Mins

NEET 2024 BIOLOGY- The Living World 1

Marks : 100

1. 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
2. The earliest classifications were based on
a) Reproduction of plants **b) Uses of plants** c) Diversity of plants
d) Evolutionary relationship of plants
3. 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.**

Solution : -

Its correct answer will be (d). Because herbarium does not have information on height of the plant! It is a collection of plants which generally have been dried, pressed.

4. The correct statement about taxon is
I. It is the taxonomic group of any rank
II. It was first introduced by ICBN.
III. Linnaeus is the founder of taxon.
IV. Taxon term was used in Systema Naturae.
a) 1, II and III **b) I and II** c) III and IV d) I and III

Solution : -

Taxon is any level of grouping of organisms, e.g. mammals, etc. The term was coined by ICBN in 1956.

5. **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.

Solution : -

Family is a group of related genera with still less number of similarities as compared to genus and species e.g., a cat and a dog, have some similarities and some differences as well. They are separated into two different families - Felidae and Canidae, respectively

6. _____ 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

Solution : -

Flora contains the actual account of habitat and distribution of plants of a given area. These provide the index to the plant species found in a particular area.

7. ICZN stands for

a) **International Code of Zoological Nomenclature**

b) International Congress of Zoological Nomenclature c) Indian Code of Zoological Names

d) None of the above

Solution : -

ICZN stands for international Code of Zoological Nomenclature.

8. The third name in trinomial nomenclature is

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

Solution : -

Trinomial nomenclature is employed to name the subspecies. In classification, the subspecies is a category below the species. Mostly in botanical literature, the third name represents variety whereas in zoological literature, the third name represents subspecies.

9. A pair of contrasting characters in keys is called

a) Doublet b) Duplet **c) Couplet** d) Triplet

10. Which of the following are considered as the twin characteristics of growth?

I. Responses to stimuli.

II. Increases in mass.

III. Increases in the number of individuals.

IV. Increases in width.

Choose the correct statement

a) II and IV b) III and IV **c) II and III** d) I, II, III and IV

Solution : -

Increase in mass and increase in number of individuals are considered the twin characteristic of growth in living organisms.

11. Match the following columns.

Column I	Column II
A. Classical taxonomy	1. Old systematics
B. Practical taxonomy	2. Utility of organisms
C. Natural taxonomy	3. Evolutionary history of species.
D. Chemotaxonomy	4. Natural similarities amongst organisms.
	5. The presence or absence of chemicals in cells or tissues.

a)

A	B	C	D
1	2	3	4

b)

A	B	C	D
5	4	3	2

c)

A	B	C	D
2	3	4	5

d)

A	B	C	D
1	2	4	5

Solution : -

Classical taxonomy - Old systematics

Practical taxonomy - Utility of organisms

Natural taxonomy - Natural similarities amongst organisms

Chemotaxonomy - The presence or absence of chemicals in cells or tissues.

12. Identify the correct sequence of taxonomic categories

a) Species → phylum → class → kingdom b) Genus → species → order → kingdom

c) Species → Genus → order → class d) Division → Family → order → Genus

13. 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)

Solution : -

Increase in body mass (by cell division) and increase in number of individuals (by reproduction) are considered as twin characteristics of growth.

14. 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)**

15. 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.

16. **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.

Solution : -

It is nearly impossible to study all the living organisms. Classification refers to the process by which individuals are grouped into categories. So, classification makes it possible to study all the living organisms by studying the category wise characteristics.

17. 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

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

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

Solution : -

Hierarchy of categories is the classification of organisms in a definite sequence of categories (taxonomic categories) in a descending order starting from kingdom and reaching upto species or an ascending order from species to kingdom.

19. First life on earth was _____ .

a) Cyanobacteria **b) Chemoheterotrophs** c) Autotrophs d) Photoautotrophs

Solution : -

In the environment of sea, first living beings were formed having abundant organic molecules. They absorbed the organic materials for the sake of nutrition and hence were chemoheterotrophs.

20. **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.

Solution : -

Binomial nomenclature is the system of providing organisms with appropriate and distinct names consisting of two words, first generic and second specific. The original names were taken from Latin and Greek languages. New names are now derived either from Latin language or are latinised. This is because Latin language is dead and therefore, it will not change in form or spelling with passage of time.

21. 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

22. Two plants can be conclusively said to belong to the same species if they

- I. have more than 90% similar genes.
II. can reproduce freely with each other and form seeds.
III. look similar and possess identical secondary metabolites.
IV. have same number of chromosomes.

Choose the correct option.

- a) Only I** b) Only II c) III and IV d) I, II and III

Solution : -

Two plants can be conclusively said to belong to the same species if they can reproduce freely with each other and form seeds. A species is a group of potentially interbreeding populations.

23. Carolus Linnaeus belonged to

- a) France** b) Germany c) Sweden d) Holland.

Solution : -

Carolus Linnaeus (1707-1778) was a Swedish naturalist, who is known as the Father of taxonomy.

24. Genus is a group of similar and related

- a) classes b) phyla **c) species** d) orders.

Solution : -

A genus is a group or assemblage of related species which resemble one another in certain correlated characters. Correlated characters are those similar or common features which are used in delimitation of various taxa. The species of one genus differ from species of a related genus in one or more characters. All the species of a genus are thought to have evolved from a common ancestor.

25. **Assertion:** A morphology based approach to taxonomy is called 'alpha taxonomy' and it is old fashioned.

Reason: A multi-disciplinary approach to taxonomy called 'omega taxonomy' is favoured in recent years, as it excludes morphological features.

- a) Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.
b) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
c) Assertion is true, but Reason is false. d) Assertion is false, but Reason is true.
e) Both Assertion and Reason are false.

Solution : -

Alpha taxonomy is based on morphology and omega taxonomy brings out taxonomic affinity on the basis of phylogenetic relationships. The latter is more favoured.