



Topic covered:

- The Living World (Session 1) - NEET
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Daily Practice Problems

1. Where does the apoplasmic growth take place?
 - a. Cell walls and cell junctions
 - b. Matrix and fibers of connective tissue
 - c. Intake of water
 - d. Both a and b
2. To which group of organisms does the International Code of Biological Nomenclature apply to:
 - a. Viruses
 - b. Animals
 - c. Plants
 - d. Both b and c
3. Select the correctly written scientific name?
 - a. APIS INDICA
 - b. Trypanosoma gambiense
 - c. Ficus Bengalensis
 - d. *Mangifera indica*
4. Which is the correct method of writing the author's name who proposed the scientific name?
 - a. Linnaeus *Homo sapiens*
 - b. L. *Homo sapiens*
 - c. *Homo sapiens* Linn
 - d. *Homo linnaeus sapiens*
5. Why was Latin chosen as the language for binomial nomenclature?
 - a. Rules of nomenclature were framed by Italian scientists and they spoke Latin
 - b. It is very difficult to pronounce Latin names and they convey multiple meanings
 - c. Latin was the natural language of many European countries
 - d. Latin was a dead language
6. From the following, select the right specific epithet.
 - a. *Indica mangifera*
 - b. *Leo Panthera*
 - c. *Canis familiaris*
 - d. *Ascaris*



7. Given below are assertion and reason. Point out if both are true with reason being the correct explanation (A), both are true but reason is not the correct explanation (B), assertion is true but reason is wrong (C), and both are wrong (D).

Assertion: ICBN is there to give scientific name to plants.

Reason: It uses articles, photographs and recommendations to name a plant.

- | | |
|------|------|
| a. A | b. B |
| c. C | d. D |
8. What do you call the maintenance of internal conditions despite changes in external environment?
- | | |
|----------------|-----------------|
| a. Metabolism | b. Homeostasis |
| c. Respiration | d. Perspiration |
9. Which among the following is an example of catabolism?
- | | |
|-----------------|-------------------|
| a. Respiration | b. Photosynthesis |
| c. Glycogenesis | d. Both b and c |



ANSWER KEY

Question Number	1	2	3	4	5	6	7
Correct Answer	(d)	(d)	(d)	(c)	(d)	(c)	(b)

Question Number	8	9
Correct Answer	(b)	(a)



Solutions

1. (d)
Apoplasmic growth occurs when non-living materials are formed by the cells which become components of tissues, e.g., cell wall, fibres of connective tissue, the matrix of bone and cartilage etc. Intake of water helps in the growth as all physiological activities require water either directly or indirectly.
2. (d)
The International Code of Biological Nomenclature is the set of rules and recommendations for the formal scientific names that are given to plants and animals.
3. (d)
According to the rules of binomial nomenclature, the genus should begin with a capital letter and the species should begin with a lowercase letter. When printed, the name should be in italics and should be underlined separately when handwritten.
4. (c)
The name of the scientist who proposed the scientific name should be written at the end of the species name in an abbreviated manner.
5. (d)
Linnaeus and other scientists used Latin because it is a dead language. It is helpful to be able to understand the source of scientific names. Although the Latin names do not always correspond to the current English common names, it's words would convey precise meanings. It was the mother of all European languages and the early botanical literature was in Latin.
6. (c)
Specific epithet is the second name in the binomial name, which follows the generic name and distinguishes the species from others in the same genus. The correct answer is c.
a is wrong as the genus name is written second and the species first. The correct name is *Mangifera indica*.
b is wrong as the species is beginning with a capital letter. The right way would be *Leo panthera*.
d is wrong as the species name is missing. It has to be *Ascaris lubricoides*.



7. (b)

Binomial nomenclature of plants follows the International Code of Botanical Nomenclature (ICBN). It uses various resources like articles, photographs, and recommendations for carrying out the above function. The reason for use of a scientific name is to avoid the confusions that can be created when attempting to use common names to refer to a species. So, both assertion and reason are correct and the reason is not the correct explanation for assertion.

8. (b)

Homeostasis is the maintenance of the internal environment in a living organism.

Metabolism is the sum total of all the chemical processes that take place within the body of an organism and it involves the flow of energy.

Respiration is the process of breaking down of complex molecules in the presence or absence of oxygen.

Perspiration is the process of sweating.

9. (a)

Catabolism is the breakdown of complex substances into simple particles releasing energy. In aerobic respiration, the carbohydrate (glucose) gets broken down releasing energy in the form of ATP.

Anabolism is the process of building up complex organic compounds from simple inorganic compounds using energy. Photosynthesis is an anabolic pathway. In Photosynthesis, using CO₂ and water, in the presence of sunlight using chlorophyll, green plants are able to synthesize a carbohydrate. During this process energy is used.

Glycogenesis is synthesis of glycogen.