

BIOLOGY The Living World

1. (3)

According to binomial nomenclature, the first word denoting the genus starts with a capital letter while the specific epithet starts with a small letter. E.g., scientific name of mango is *Mangifera inidca*. Name of the author appears after the specific epithet, i.e., at the end of biological name and is written in an abbreviated form, e.g., *Mangifera indica* Linn. It indicates that this species was first described by Linnaeus.

2. (4)

According to international code for botanical nomenclature (ICBN) the first word denoting the genus starts with a capital letter while the specific epithet starts with a small letter.

3. (3)

Biological names are derived either from Latin language or are latinised. This is because Latin language is a dead language and therefore it will not change in form or spellings with the passage of time.

4. (2)

5. (1)

Consciousness is awareness of the surroundings and responding to external stimuli. The external stimuli can be physical, chemical or biological. All organisms, from primitive prokaryotes to most advanced and complex eukaryotes, are able to sense and respond to environmental factors. Consciousness is thus said to be defining property of living organisms.

6. (3)

ICBN stands for International Code of Botanical Nomenclature. It is a set of rules and recommendations dealing with the formal botanical names given to plant. The foundations of ICBN are given in book written by C. Linnaeus named *Philosophia Botanica*. It is independent of zoological nomenclature. The name ICBN has now changed to ICN (International Code of Nomenclature for algae, fungi and plants) at the International Botanical congress is Melbourne in July 2011 as part of the *Melbourne* Code which replaces the *Vienna Code* of 2005.

7. (4)

Binomial nomenclature (given by Linnaeus) is the system of providing organisms with appropriate and distinct names consisting of two words - first generic (represents genus) and second specific (represents species). E.g., in *Homo sapiens*, *Homo* refers to genus and *sapiens* refers to species.

- 8. (3)
- 9. (1)
- 10. (4)

A number of scientists have established procedures to assign a scientific name to each known organism. This is acceptable to biologists all over the world. The scientific names ensure that each organism has only one name. Description to any organism should enable the people (in any part of the world) to arrive at the same name. They also ensure that such a name has not been used for any other known organism.