

BIOLOGY**The Living World**

21. (2)

22. (4)

Binomial Nomenclature is the system of providing organisms with appropriate and distinct names consisting of two words, first generic and second specific. The first or generic word is called genus. It is like a noun and its first letter is written in capital form. The second or specific name represents the species. It is like an adjective. Its first letter is written in small form. The scientific name is printed in italics. It is underlined previously 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 spellings with the passage of time.

23. (2)

Carolus Linnaeus is the father of modern botany. His important works were *Species Plantarum* and *Elora Lapponica*. He proposed an artificial sexual system of classification in *Systema Naturae* (1735) containing twenty four classes.

24. (3)

Among the given options. Angiospermae is not a taxonomic category rather it is a division of angiosperms.

25. (3)

Photoperiod affects flowering and reproduction in plants. Binomial nomenclature system was given by Carolus Linnaeus.

26. (1)

27. (4)

Kingdom is the highest taxonomic category and species is a natural population of individuals or group of populations which resemble one another.

28. (3)

John Ray (1627-1705), an English naturalist described about 18600 plants in three volumes of *Historia Generalis Plantarum* between 1686-1704. He introduced the word "species" for the first time and defined it as an assemblage of individuals with similar parentage and having ability to pass the parental traits to the offspring.

29. (4)

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 up to Species or an ascending order from Species to Kingdom. The number of similar characters of categories decreases from lowest rank (Species) to highest rank (Kingdom). The taxonomic hierarchy includes seven obligate categories- Kingdom, Division or Phylum, Class, Order, Family, Genus and Species.

30. (2)

The seven obligate categories used in taxonomy are: Kingdom, Phylum/ Division, Class, Order, Family, Genus, Species. Class includes a group of related orders e.g., Class-Mammalia includes different orders such as Rodentia (of rats), Lagomorpha (of rabbits) and Carnivora (of cats and dogs).