

TEST YOUR KNOWLEDGE

BASICS OF PLANT TAXONOMY

Pooja Gupta

1. Who is known as the 'Father of Plant Taxonomy'?
 - (a) Theophrastus
 - (b) Carolus Linnaeus
 - (c) Armen Takhtajan
 - (d) JP de Tournefort
2. Angiosperms are thought to have originated from a perennial rhizomatous small plant rather than a tree. This is known as _____.
 - (a) Euanthial theory
 - (b) Anthocorm theory
 - (c) Genophyll theory
 - (d) Herbaceous origin hypothesis
3. Scientific names of plants are treated as _____ irrespective of their source.
 - (a) English
 - (b) Latin
 - (c) Greek
 - (d) Roman
4. Which of the following is considered as the basic unit of plant taxonomy?
 - (a) Specimen
 - (b) Variety
 - (c) Cultivar
 - (d) Species
5. The taxonomic characters that help in distinguishing a plant taxon from other such closely related taxa and identifying it is termed as _____.
 - (a) Homologous characters
 - (b) Analogous characters
 - (c) Diagnostic characters
 - (d) None of the above
6. The size of a standard herbarium sheet is
 - (a) 29 x 41.5 cm
 - (b) 11.5 x 16.5 cm
 - (c) 15.5 x 30 cm
 - (d) 20 x 40.5 cm
7. The taxonomic keys help in the quick identification of plants. These are _____.
 - (a) Always single access
 - (b) Always multi-access
 - (c) Either single or multi-access
 - (d) Neither single nor multi-access
8. An inventory of all the plants of a defined geographical area is known as _____.
 - (a) Herbarium
 - (b) Monograph
 - (c) Flora
 - (d) Journal
9. The nomenclature of plants follows a code published by the International Association of Plant Taxonomy. It is now known as _____.
 - (a) International Code of Botanical Nomenclature (ICBN)
 - (b) International Code of Nomenclature (ICN)
 - (c) International Code of Nomenclature of algae, fungi and plants (ICN)
 - (d) International Code of Nomenclature of Plants (ICNP)
10. Botanical names published before which date are not considered as valid?
 - (a) 1 January 1953
 - (b) 1 January 1753
 - (c) 1 May 1973
 - (d) 1 May 1753

11. According to the principles of plant taxonomy, it is essential to designate a particular specimen or illustration as the type of the species by the original author at the time of publication of a new species. It is referred to as _____.
- Holotype
 - Paratype
 - Lectotype
 - Neotype
12. A classification system of plants utilising general similarity in grouping taxa based on morphology, anatomy, embryology, cytology, etc. and all other available fields of taxonomic information would be called _____.
- Artificial system
 - Sexual system
 - Phenetic system
 - Phylogenetic system
13. A group of closely related genera of plants represents a _____.
- Species
 - Genus
 - Family
 - Order
14. Utilising phytochemical information for understanding phylogenetic relations and classification of plants is _____.
- Chemotaxonomy
 - Chromotaxonomy
 - Phylotaxonomy
 - Phylochemotaxonomy
15. The most well-developed natural system of plant classification published in *Genera Plantarum* in the 19th century, which has great practical utility even today, was given by _____.
- Carolus Linnaeus
 - Jean BP Lamarck
 - George Bentham & JD Hooker
 - Adolph Engler & Karl A Prantl
16. In a taxonomic hierarchy, taxa of successively higher rank contain successively _____.
- Less members and more features in common
 - More members and less features in common
 - Less members and less features in common
 - More members and more features in common
17. OTUs are very important in the data analysis of plant taxa. It refers to _____.
- Operational Taxonomic Units
 - Ordered Transformative Units
 - Operative Transitional Units
 - Ordered Taxonomic Units
18. The primitive characters or character-states possessed by a plant that determine its phylogenetic status are also known as _____.
- Plesiomorphic characters
 - Apomorphic characters
 - Evolutionary characters
 - Derived characters
19. A branching tree diagram constructed based on evolutionary the history between several species depicting ancestor-descendant relationship is known as _____.
- Cluster diagram
 - Venn diagram
 - Cladogram
 - Phenogram
20. In the present times, plant taxonomy follows the APG system of a classification that combines traditional morphological taxonomic data with molecular and genetic data of plants. It stands for _____.
- Advanced Paraphyletic Group
 - Angiosperm Phylogeny Group
 - Advanced Phylogeny Group
 - Angiosperm Paraphyletic Group

Answers

1.b	2.d	3.b	4.d	5.c	6.a	7.c	8.c
9.c	10.d	11.a	12.c	13.c	14.a	15.c	16.b
17.a	18.a	19.c	20.b				

Contributed by Dr Pooja Gupta, Assistant Professor in Botany, Ramjas College, University of Delhi, Delhi-110007.
Email: poojagupta@ramjas.du.ac.in