

Important Questions on Principles of Taxonomy



Principles & Methods of Taxonomy: Levels of Structural Organization

1. Numerical taxonomy is also known as?
A. Phenetics
B. Statistical taxonomy
C. Computer aided taxonomy
D. All of the above
2. Following sequence in taxonomic categories is given. Choose the correct one.
A. Phylum- Order-Class-Tribe-Family-Genus-Species.
B. Division-Class-Order-Family-Tribe-Genus-Species.
C. Class-Phylum-Tribe-Order-Family-Genus-Species.
D. Division-Class-Family-Tribe-Order-Genus-Species.
3. In Taxonomy, original specimens which are submitted by author himself is known as?
A. Paratype
B. Paralectotype
C. Isotype
D. Holotype
4. In plants, for establishing genetic relationship, which technique is used routinely?
A. Chromosome morphology
B. Amino acid sequence
C. Serological investigation
D. Isoenzyme profiling
5. In taxonomy, different hybrid form of same percentage is known as?
A. Variety
B. Race
C. Apomicts
D. Nothomorphs
6. A taxonomic group of any ranking is known as:
A. Taxon
B. Order
C. Phylum
D. Family
7. If two organisms are placed in the same phylum, they are surely also part of the same:
A. Kingdom
B. Species
C. Family
D. Class
8. Following classification system is given below;
I) Bentham and Hooker's system
II) Hutchinson system
III) Linnaeus system
IV) Cronquist's system
Arrange the chronological order of these classification systems?
A. II-III-I-IV
B. I-II-III-IV
C. I-III-II-IV
D. IV-III-II-I

9. Match the following
- | | |
|---------------------------|-------------------------|
| I) Two kingdom System | II) Three Domain system |
| III) Three Kingdom system | IV) Five kingdom system |
| A). Carl Woese | B). Earnest Haeckel |
| C). Carolus Linnaeus | D). RH Whittaker |
- And choose the correct one
- | | |
|---------------------------|---------------------------|
| A. I-D, II-A, III-B, IV-C | B. I-C, II-A, III-B, IV-D |
| C. I-C, II-A, III-B, IV-D | D. I-C, II-A, III-B, IV-D |
10. Match the following
- | | |
|----------------------|--------------------------------|
| I) Bergey's Manual | II) Binomial Nomenclature |
| III) Kingdom Monera | IV) Genus of Mango |
| A). Carolus Linnaeus | B). Cyanobacteria |
| C). Mangifera | D). Classification of bacteria |
- Choose the correct one
- | | |
|---------------------------|---------------------------|
| A. I-A, II-D, III-B, IV-C | B. I-B, II-A, III-D, IV-C |
| C. I-D, II-A, III-B, IV-C | D. I-C, II-A, III-B, IV-A |

Answers

- | | | | | |
|-------|-------|-------|-------|--------|
| 1. D. | 2. A. | 3. D. | 4. B. | 5. D. |
| 6. A. | 7. A. | 8. C. | 9. B. | 10. C. |

Solutions

Solution 1:

Numerical taxonomy is one of the methods of classification system in biology. In this method, grouping of taxonomic units is done by numerical methods according to their characters; cluster analysis of characters is done with the computational method. This method is also known as phenetics wherein the attempting of groups is done in higher taxa based on overall similarity.

Solution 2:

In given categories in taxonomic range of biological system, species is smallest unit, many species make one genus, several genera come into one family, and many families makes tribe, tribe makes class, classes come under order and order makes phylum.

Solution 3:

Holotype is a type of specimen which is submitted by author himself. Paratype – representative specimen(s), other than the holotype, in the type series referred to in the original description. Paralectotype – the type specimens remaining after a lectotype is designated. Isotype is known as any duplicate specimen of Holotype.

Solution 4:

In plants, for establishing genetic relationship, Amino acid sequence is used routinely, in this method evolutionary relation between plant species can be determined.

Solution 5:

Nothomorphs are known as member of groups having different hybrid forms of same percentage. Apomicts are seed forms without fertilization. Race is a system of classification of human beings only, whereas variety is the most refined division of all life forms

Solution 6:

Taxon is a unit of taxonomy, it is unit of any rank like phylum, kingdom order class, which designates organism into a group.

Solution 7:

Kingdom is the top most taxon in taxonomy, after that phylum comes if any organism come in the same phylum, it surely comes in the same kingdom.

Solution 8:

In chronological order, Bentham and Hooker system comes into 1882, after that Linnaeus system comes thereafter Hutchinson system and Cronquist's system comes.

Solution 9:

Two kingdom system was idealised by Carolus Linnaeus, in this system two kingdom Plantae and Animalia were introduced; the three domain system was given by Carl Woese in this system all organisms are divided into three domain that is Archaea, the Bacteria, and the Eukarya. The three kingdom system given by Earnest Haeckel wherein he proposed three kingdom of organisms, that is, Plantae, Protista and Animalia. Five kingdom system was proposed by RH Whittaker in this system five kingdoms Monera, Protista, Fungi, Plantae and animalia were introduced.

Solution 10:

Bergeys manual is a manual of bacteria classification; Binomial nomenclature system is given by Carolus Linnaeus; Cyanobacteria belongs to kingdom Monera and Mangifera is the genus of mango.

Rapid Revision Life Science 2021

A Score Booster Practice Course for CSIR NET Aspirants

Why take this course?

- 120+ Hrs Live Classes & Doubt Sessions for complete conceptual clarity
- 1000+ Practice Questions covering all levels of difficulty
- 20+ Unit Wise Study Modules & Mind Maps
- 50+ Full Mock Tests, Chapter Wise Mock Tests, PYQs Mock Tests

