

EXERCISE-I

NOMENCLATURE, CLASSIFICATION,
SPECIES CONCEPT

1. Most acceptable concept of species is :-
(A) Static concept
(B) Biological concept
(C) Typological concept
(D) Genetic concept
2. Artificial system of classification classifies plants on the basis of :-
(A) One or two characters
(B) Phylogenetic trends
(C) Many naturally existing characters
(D) None of the above
3. The term new systematics was introduced by :-
(A) Linnaeus (B) Bentham
(C) Hutchinson (D) Huxley
4. Group of organisms that closely resemble each other and freely interbreed in nature, constitute a:-
(A) Species (B) Genus
(C) Family (D) Taxon
5. ICBN was first revised in :-
(A) 1961 (B) 1964
(C) 1975 (D) 1753
6. The term taxon refers to :-
(A) Name of a species
(B) Name of genus
(C) Name of family
(D) A taxonomic group of any rank
7. The herbarium specimen on whose basis a new species is described for the first time is called as :-
(A) Syntype (B) Holotype
(C) Paratype (D) Neotype
8. The scientific naming of plants began with publication of Linnaeus book :-
(A) Genera plantarum (B) Systema naturae
(C) Species plantarum (D) Charaka samhita
9. Which book most impressed the opinion of taxonomists :-
(A) Enquiry into plants (B) Origin of life
(C) Genera plantarum (D) Origin of species
10. The basic smallest unit of classifications is :-
(A) Genus (B) Species
(C) Order (D) All of the above
11. Suffix for sub species is :-
(A) Phytina (B) Oideae
(C) Ineae (D) None
12. Individuals of same species having non-genetic differences due to environment are called :-
(A) Biotypes (B) Ecotype
(C) Ecophenes (D) None
13. Morphologically similar but reproductively isolated species are called :-
(A) Neontological species
(B) Sibling species
(C) Allopatric species
(D) Morpho-species
14. Plant nomenclature means :-
(A) To give names to plants without any rules
(B) Nomenclature of plants under the international rules
(C) Nomenclature of plants in local language
(D) Nomenclature of plants in english language
15. Taxonomy refers to :-
(A) Plant classification (B) Plant nomenclature
(C) Plant affinity (D) All the above

16. Which of the following is a correct name :-
(A) Solanum tuberosum
(B) Solanum Tuberosum
(C) Solanum tuberosum Linn.
(D) All the above
17. Systematics deals with :-
(A) Classification (B) Nomenclature
(C) Plant description (D) Identification
18. Scientific name of Mango plant is *Mangifera indica* (Linn.) Santapau in the above name Santapau refers to :-
(A) Variety of Mango
(B) A taxonomist who proposed the present nomenclature in honour of linnaeus
(C) A scientist who for the first time described Mango plant
(D) A scientist who changed the name proposed by Linnaeus and proposed present name
19. Type specimen selected from the original material in case the holotype is missing, is called :-
(A) Lectotype (B) Neotype
(C) Syntype (D) Paratype
20. Phylogeny refers to :-
(A) Natural classification
(B) Evolutionary classification
(C) Evolutionary history
(D) Origin of algae
21. Static concept of species is given by :-
(A) Linnaeus (B) Bentham
(C) Koch (D) Mayr
22. In taxonomy the first step is :-
(A) Identification (B) Nomenclature
(C) Classification (D) Affinities
23. The suffix – inae signifies the rank :-
(A) Tribe (B) Subtribe
(C) Suborder (D) Sub family
24. Species living in different geographical areas are called :-
(A) Allochronic (B) Allopatric
(C) Sympatric (D) Siblings
25. A large number of unknown species of plants and animals are believed to be present in :-
(A) Temperate forests (B) Antarctica
(C) Taiga (D) Tropical forest
26. Biological concept of species proposed by :-
(A) Linnaeus (B) Mayr
(C) John Ray (D) De Candolle
27. For higher plants, flowers are chiefly used as a basis of classification, because :-
(A) These show a great variety in colour
(B) It can be preserved easily
(C) Reproductive parts are more conservative than vegetative parts
(D) None of these
28. Individuals of same species having genetic variation and occur in same environment are called:-
(A) Biotypes (B) Ecotype
(C) Ecophenes (D) Ecads
29. The binomial system of nomenclature was initially proposed by :-
(A) Magnus (B) Bauhin
(C) Caesalpinno (D) Discorides
30. Biochemical resemblances are used in the identification of :-
(A) Protistan species
(B) Moneran species
(C) Fungal species
(D) Higher plants
31. Concept of phylogeny was proposed by :-
(A) John Ray (B) Lamarck
(C) Ernest Haeckel (D) Darwin

32. A division is formed by combining several :-
(A) Orders (B) Families
(C) Classes (D) Tribes
33. An international code of botanical nomenclature was first proposed in the year :-
(A) 1930 (B) 1830
(C) 1913 (D) 1813
34. For declaration of new species of higher plants what characters are used :-
(A) Floral character of new species
(B) Anatomical characters of new species
(C) Physiological character of new species
(D) Character of endosperm
35. The standard size of herbarium sheets is :-
(A) 11.5" × 16.5" (B) 15.5" × 16.5"
(C) 18.5" × 10.5" (D) 20.5" × 21.5"
36. Which statement is true :-
(A) Tautonyms are not allowed in plants
(B) Tautonyms are not allowed in animals
(C) Tautonyms normally allowed in animals and some time allowed in plants
(D) Tautonyms allowed only in bacteria
37. Trinomial nomenclature of classification was proposed by :-
(A) Linnaeus (B) Huxley and Strickland
(C) John-Ray (D) Theophrastus
38. Most of the botanical names are drawn from the following language :-
(A) German (B) Greek
(C) Latin (D) Spanish
39. Evolutionary classification is called :-
(A) Artificial system (B) Natural system
(C) Phylogenetic system (D) None of the above
40. Which of the following statements regarding nomenclature is correct :-
(A) Generic name always begins with capital letter whereas specific name with small letter
(B) Scientific name should be printed in italics
(C) Scientific name when typed or handwritten should be underlined
(D) All the above
41. The systematic arrangement of taxa is called :-
(A) Key (B) Taxonomy
(C) Geneology (D) Hierarchy
42. Which is the most important but generally not used criteria for the identification of the species-
(A) Interbreeding (B) Morphology
(C) Genetic material (D) None
43. Number of obligatory categories in taxonomy are :-
(A) 7 (B) 8
(C) 9 (D) 5
44. Herbarium is :-
(A) A garden where medicinal plants are grown
(B) Garden where herbaceous plants are grown
(C) Dry garden
(D) Chemical to kill plants
45. The year of publication of "Species plantarum" :-
(A) 1853 (B) 1857
(C) 1753 (D) 1786
46. The biological concept of species is mainly based on :-
(A) Morphological features
(B) Morphology and method of reproduction
(C) Method of reproduction only
(D) Reproductive isolation
47. A duplicate of holotype is called :-
(A) Isotype (B) Syntype
(C) Neotype (D) Paratype
48. Term taxon was given by :
(A) Adolf Mayer (B) Linnaeus
(C) Darwin (D) Koch
49. Which of the following is a species :-
(A) *Tamarindus* (B) *Indicus*
(C) *Indica* (D) *Tamarindus indicus*
50. Tautonyms are valid names according to :-
(A) ICBN (B) Species plantarum
(C) Genera plantarum (D) ICZN
51. Practical significance of taxonomy is :-
(A) Classification
(B) To understand diversity
(C) To understand evolution
(D) Identification of organisms

52. Which name is invalid :-
 (A) Name not published in species plantarum
 (B) Name proposed prior to 1961
 (C) Name which is not in latin
 (D) Name for which holotype is not designated
53. Which system classifies a plant in more than one groups :-
 (A) Practical classification
 (B) Artificial classification
 (C) Natural classification
 (D) Phylogenetic classification
54. Author of book "*Flora British Indica*" :-
 (A) Father Santapau
 (B) J.D. Hooker
 (C) William Rouxburgh
 (D) G. Bentham
- HISTORY OF TAXONOMY**
55. Eichler divided plant kingdom in :-
 (A) Two divisions (B) Four divisions
 (C) Five divisions (D) Ten divisions
56. Embryophyta includes :-
 (A) Angiosperms only
 (B) Algae and fungi
 (C) Bryophyta & Pteridophyta
 (D) All plants except thallophyta
57. According to Tippo, BGA are included in :-
 (A) Chrysophyta (B) Pyrrophyta
 (C) Chlorophyta (D) Cyanophyta
58. Oswald Tippo placed slime molds in :-
 (A) Cyanophyta (B) Chlorophyta
 (C) Phaeophyta (D) Myxomycophyta
59. "Genera Plantarum" was written by :-
 (A) Engler and Prantal (B) Hutchinson
 (C) Bentham & Hooker (D) Bessey
60. Angiosperms (dicotyledons) were distinguished into archichlamydae and metachlamydae by :-
 (A) Candolle (B) Hutchinson
 (C) Engler and Prantl (D) None
61. Chief merit of Bentham and Hooker's classification is that :-
 (A) It is a system mostly based on evolutionary concepts
 (B) It is a natural systems of classification of all groups of plants
 (C) The description of the taxa are based on actual observation of the specimen
 (D) It also considers the phylogenetic aspects
62. Bantham and Hooker classified dicots into :-
 (A) Polypetalae, gamopetalae and glumiflorae
 (B) Polypetalae, gamopetalae and monochlamydae
 (C) Achlamydae, diclamydeae and metachlamydae
 (D) Archichlamydae, sympetalae & apetalae
63. Zoodiogama includes :-
 (A) Gymnosperms and pteridophyta
 (B) Dicots, monocots, gymnosperm
 (C) Bryophyta and pteridophyta
 (D) Only thallophyta
64. Four kingdom system of classification was proposed by :-
 (A) Whittaker (B) Copeland
 (C) Linnaeus (D) Oswald Tippo
65. The system of classification porposed by Bentham and Hooker is :-
 (A) Artificial (B) Natural
 (C) Phylogenetic (D) Numerical
66. The classification of Linnaeus was mainly based on :-
 (A) Sepals (B) Steam
 (C) Petals (D) Stamens
67. Kingdom monera comprises the :-
 (A) Plants of economic importance
 (B) All the plants studied in botany
 (C) Prokaryotic organisms
 (D) Plants of Thallophyta group
68. Embryophyta includes :-
 (A) Algae (B) Fungi
 (C) Bryophyta (D) All of these

69. Whittaker is famous for :-
 (A) Two kingdom classification
 (B) Four kingdom classification
 (C) Five kingdom classification
 (D) Distinguishing in Bacteria & blue gree Algae
70. First phylogenetic system of plant classification was given by :-
 (A) Engler and Prantl (B) Eichler
 (C) Ostwald Tippo (D) Bentham & Hooker
71. System of classification proposed by Linnaeus was
 (A) Artificial (B) Natural
 (C) Sexual (D) (A) and (C) both
72. "Die Naturlichen Pflanzen familien" wrote by :-
 (A) Eichler
 (B) Linnaeus
 (C) Engler and Prantl
 (D) Bentham and Hooker
73. Engler and Prantl created metachlamydae to include :-
 (A) Polypetalous dicots
 (B) Gamopetalous dicots
 (C) Gamopetalous monocots
 (D) Gymnosperm
74. In which of the following systems, plants are classified in geneological order :-
 (A) Artificial (B) Natural
 (C) Phylogenetic (D) Nonphylogenetic
75. Which book is the starting point for phylogenetic system :-
 (A) Origin of species
 (B) Die Naturlichen Pflanzen familien
 (C) The phylogenetic taxonomy of flowering plants
 (D) Historia plantarum
76. Which of the following taxonomists first employed the characteristics of vascular tissue in taxonomy:-
 (A) Tippo (B) Engler and Prantl
 (C) Takhtajan (D) A.P. de Candolle
77. The group "Pteropsida" proposed by Oswald Tippo includes :-
 (A) Ferns (B) Gymnosperms
 (C) Angiosperms (D) All the above
78. In Whittaker's five kingdom classification, eucaryotes were assigned to :-
 (A) All the five kingdom
 (B) Only four of the five kingdoms
 (C) Only three kingdom
 (D) Only one kingdom
79. The book genera plantarum which contains the classification of seed plants was wrote by :-
 (A) Linnaeus
 (B) De jussieu
 (C) Bentham and Hooker
 (D) Eichler
80. "Theorie elementaire de la botanique" is the book of :-
 (A) Takhtajan (B) De Candolle
 (C) Eichler (D) Linnaeus
81. Carolus Linnaeus classified plant kingdom on the basis of :-
 (A) Floral morphology
 (B) Overall morphology of plants
 (C) Type of sexual reproduction
 (D) Anatomical character
82. Serology can be used to know the phylogenetic relationship of :-
 (A) Plants (B) Animals
 (C) Both the above (D) Dinosours
83. Which of the following book was written by Theophrastus :-
 (A) Enquiry in to plants
 (B) Causes of Plants
 (C) Historia plantarum
 (D) All the above
84. Oswald-Tippo included how many divisions in sub kingdom thallophyta :-
 (A) 20 – divisions (B) 10 – divisions
 (C) 7 – divisions (D) 2 – divisions
85. First plant classification was given by :-
 (A) Linneaus (B) John-Ray
 (C) Theophrastus (D) Darwin

86. Division "Tracheophyta" includes :—
 (A) Bryophyta
 (B) All vascular plants
 (C) All non-vascular plants
 (D) All non-vascular and vascular plants
87. Which group of plant have embryo but not vascular tissue :—
 (A) Cyanophyta (B) Tracheophyta
 (C) Bryophyta (D) Chlorophyta
88. According to Benthum & Hooker total families of real flowering plants :—
 (A) 202 (B) 199
 (C) 34 (D) 85
89. Who gave importance of serology in taxonomy:
 (A) Willis (B) Karl Menz
 (C) Hutchinson (D) Whittaker
90. The word Cryptogamia was coined by :—
 (A) Theophrastus (B) Linnaeus
 (C) Benthum & Hooker (D) John-Ray
91. Siphonogama includes :—
 (A) Bryophyta and thallophyta
 (B) Pteridophyta & Bryophyta
 (C) Gymnosperm & angiosperm
 (D) Thallophyta and gymnosperm
92. The phylogenetic relation ship among organisms can be established by the technique :—
 (A) Autoradiography
 (B) X-ray crystallography
 (C) Serology
 (D) Geneology
93. According to four kingdom system of Copeland, the fungi belong to kingdom :—
 (A) Protista (B) Mychota
 (C) Mycota (D) Plantae
94. According to Oswald Tippo Angiosperms are placed under:-
 (A) Atracheata (B) Thallophyta
 (C) Tracheophyta (D) Spermatophyta
95. "Systema Naturae" book was written by:-
 (A) Angler and prantle (B) Darwin
 (C) Linnaeus (D) Oswald & Tippo
96. According to Eichler cryptogamia includes :-
 (A) Gymnosperm and Angiosperm
 (B) Thallophyta and Gymnosperm
 (C) Thallophyta, Bryophyta and Pteridophyta
 (D) Only angiosperm
97. According to Whittaker kingdom monera includes:-
 (A) Unicellular eukaryotes
 (B) Prokaryotes
 (C) Slime molds & protozoa
 (D) Multicellular & eukaryotes
98. "Cellular plants" and "Vascular plants" are the groups created by:-
 (A) Tippo (B) Eichler
 (C) Takhtajan (D) De candolle
99. According to Copeland the "Red algae" belongs to :-
 (A) Monera (B) Protista
 (C) Plantae (D) Animalia
100. Linnaeus proposed an outline of plant classification in :
 (A) Genera Plantarum
 (B) Species Plantarum
 (C) Systema Naturae
 (D) Philosophia Botanica
101. Who classified the Embryophyta on the basis of fertilization -
 (A) Eichler (B) Tippo
 (C) Takhtajan (D) Engler & Prantl
102. The earliest serious efforts to classify the living things were made by :-
 (A) Greek philosophers
 (B) Latin American scientist
 (C) British herbalists
 (D) Indian Hakims
103. Classification proposed by Bentham and Hooker is mainly based on :—
 (A) Embryological characters
 (B) Floral characters
 (C) Vegetative characters
 (D) Phylogenetic characters

- 104.** The separation of living beings into five kingdoms is based on :—
 (A) Complexity of cell structure
 (B) Complexity of organism's body
 (C) Mode nutrition
 (D) All the above
- 105.** Which of the following organisms were never included in protista :—
 (A) Bacteria (B) Red algae
 (C) Slimemolds (D) Mosses
- 106.** In which book, Linnaeus proposed the principles of nomenclature :—
 (A) Species plantarum
 (B) Systema Naturae
 (C) Flora lapponica
 (D) Philosophia botanica
- 107.** Which of the two groups include the similar plants
 (A) Siphonogama and spermatophyta
 (B) Siphonogama and zoodiogama
 (C) Metachlamydae and monochlamydae
 (D) Polypetalae and gamopetalae
- 108.** In Tippo's classification the group atracheata includes :—
 (A) Thallophyta
 (B) Bryophyta
 (C) All the vascular plants
 (D) All the non-vascular plants
- 109.** Phylogenetic relationship of plants can be established by :—
 (A) Plantserum (B) Animal serum
 (C) Chromatography (D) Autoradiography
- 110.** Fertilization by zoodiogamy occurs in :—
 (A) Cryptogams (B) Phanerogams
 (C) Only bryophyta (D) Only pteridophyta
- 111.** Swedish botanist who proposed the artificial system of classification on the basis of floral morphology was :—
 (A) De-Jussieu
 (B) Bentham and Hooker
 (C) John Ray
 (D) Carl von linne
- 112.** Kingdom of unicellular eucaryotes :—
 (A) Monera (B) Protista
 (C) Fungi (D) Plantae
- 113.** Who among the following proposed a classification in which plants with one stamen were placed under the class *Monandria*, with two in *Diandria* and with many stamens in polyandria:-
 (A) Hutchinson
 (B) Bentham and Hooker
 (C) Cronquist
 (D) Linnaeus