

CBSE TEST PAPER-01
CLASS - XI BIOLOGY
(The Living World)

General Instruction:

- All questions are compulsory.
 - Question No. 1 to 3 carry one marks each. Question No. 4 to 6 carry two marks each. Question No. 7 and 8 carry three marks each. Question No. 9 carry five marks.
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1. Name the three fields of systematics.
2. Give the two name system of organisms?
3. Write the correct order of sequence of taxonomical categories?
4. What are the advantages of giving scientific names of the organisms?
5. Give the role of botanical gardens?
6. Differentiate between species & taxon?
7. Name the guidelines for naming of organisms?
8. What is Biological classification? What is the need of classification?
9. What is Binomial system of nomenclature? Who proposed this system? Why is binomial nomenclature the most acceptable mode of naming organism?

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[ANSWERS]

Ans. 1 Nomenclature, classification & taxonomy.

Ans. 2 Binomial Nomenclature

Ans. 3 Species → genus → family → order → class → Phylum → kingdom.

Ans. 4 i) Scientific names are universally accepted in the world because they are based on same principles that are universal.

ii) The advantage of a technical term is the relationship & comparison too the others.

Ans. 5 i) Botanical gardens provide valuable information on various plants Local flora, bonsai, rare plants etc.

ii) Botanical gardens supply wide range of plant species, seeds, flowers, fruits for botanical research.

iii) Botanical gardens conserve and propagate rare species and genetic diversity.

iv) To maintain records of local flora.

Ans. 6

| SPECIES | TAXON |
|---------------------------------------|--|
| i) It is the basic taxonomic category | i) It is a level of taxonomic category |
| ii) It is a rank | ii) It is a group of concrete biological aspects |
| iii) It is monophyletic | iii) It may be mono or polyphyletic. |

Ans. 7 Guidelines for naming of organisms include :-

i) A scientific name generally has two words in Latin or derived from latin irrespective of their origin.

ii) First word denotes the genus where as second word for species.

iii) Names are printed in italics or are separately underlined to indicate the Latin origin.

iv) Each taxonomic group has only one correct name.

v) The name must be short, precise and easy to pronounce.

vi) Generic name begins with a capital letter & the specific name with small letter eg. Homo sapiens.

vii) The name of author is written in abbreviated form after species name & it is printed in Roman.

Ans.8 Biological Classification is the scientific study of arranging organisms into group and subgroup on the basis of their similarities and dissimilarities and placing the group in a hierarchy of categories.

Classification becomes essential for the following reasons:

- i) It is very essential for the systematic study of living beings. Without this study of different organisms would be in confusion.
- ii) It is impossible to study each & every organism.
- iii) Without a proper system so classification, it is impossible to recognize or identify different types of organism.
- iv) Classification helps in knowing the relationships among different groups of animals & plants.

Ans. 9 Naming of plants & animals with two words one generic & other specific name is called binomial system of nomenclature. Carolus Linnaeus introduced this scientific system to name a species. He gave two names to a species eg. Mangifere is generic name and indica is the specific name.

Binomial nomenclature is universally accepted all over the world because it is written according to universal rules of nomenclature framed by ICBN, ICZN, & ICNPC etc. The first part of the name identifies the genus to which the species belongs; the second part identifies the species within the genus. For example, humans belong to the genus Homo and within this genus to the species Homo sapiens.

It is the most acceptable mode of naming organisms because the same name can be used all over the world, in all languages, avoiding difficulties of translation. The scientific names are based on agreed principles and criteria.