





## BOTANY - I LIVING WORLD

2. Marks - Ex

4. Marks

8- Marks + Diagrams



## LIVING WORLD

1) **What does ICBN stand for?**

**Ans.** ICBN stand for "International code for Botanical Nomenclature".

Based on ICBN rules scientific names are given to plants.

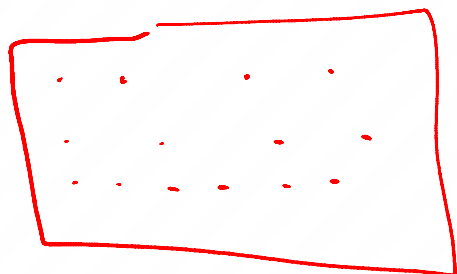
*Mangifera indica*



## LIVING WORLD

2) What is flora? ✓

**Ans.** Actual account of Habitat, distribution and systematic listing of plants of a given area is called flora.



S. N  
Family  
Genus  
Species

100 Types  
10 - Feb  
10 - bSc



## LIVING WORLD

3) **Define Metabolism.** What is the difference between anabolism and catabolism?

**Ans.** . Sum total of all the chemical reactions occurring in the body of an organism is called Metabolism. — 2 Types

Anabolism ✓	Catabolism ✓
(i) It is a <u>constructive metabolic process</u>	(i) It is a <u>destructive metabolic process.</u>
(ii) <u>Complex molecules</u> are <u>formed from simple molecules by photosynthesis.</u> ✓	(ii) <u>Complex molecules</u> are <u>broken down into simple molecules by respiration.</u>



## LIVING WORLD

### 4) What is systematics? ✓

**Ans.** "The study of different kinds of Organisms, their diversities and also the relationship among them" is referred to as systematics.

The word systematic is derived from the Latin word system which means systematic arrangement of organisms.

P.K → order → class → Family → Genus → Species



## LIVING WORLD

5) Give the scientific name of Mango. Identify th generic name and specific epithet.

**Ans.** Mangifera Indica. — 1.7

Its generic name is "Mangifera" and specific epithet is "Indica".



## LIVING WORLD

6) **What is growth? What is the difference between the growth in living organisms and growth in non-living objects ?** - *Plant animal* *say, mountain Rocks*

**Ans.** Growth is a permanent and irreversible increase in the size of a living organism. In living organisms growth is from inside. Whereas in non-living objects like mountains and sand mounds growth occurs by accumulation of material on the surface.

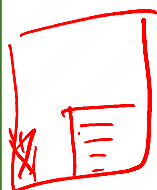






## LIVING WORLD

1) What is meant by Identification and nomenclature? How is a key helpful in the identification and classification of an organism?



Ans.

- Identification is to determine, "Whether a collected organism is entirely new or already known"
- Identification can be done by directly comparing the characters with herbarium or indirectly with the help of keys in floras.
- Nomenclature is defined as "Providing a scientific name to an identified organism". Key :
- Key is a taxonomical aid used for Identification of plants and animals based on the similarities and dissimilarities.



## LIVING WORLD

- The key are based on the contrasting characters generally in a pair called couplet. It represents the choice made between two opposite options. Each statement in the key is called lead. ✓
- It represents the choice made between two opposite options.
- Each statement in the key is called lead. ✓
- Separate taxonomic keys are required for each taxonomic category such as family, genus and species for identification purposes.
- Keys are generally analytical in nature.

P.K → Order → Class → Family → Genus → Species



## LIVING WORLD

2) **Explain binomial nomenclature?** — 4.m

Ans. Naming the plants with two words is called Binomial nomenclature. This naming system was given by carolus linnaeus.

Naming is done by following some rules. They are. 1. Biological names are generally in latin and written in Italics.

2. The first word represents the genus while the second word represents the species. 3. Both the words, when hand written, are separately underlined.

3. Both the words, when hand written, are separately underlined.

Azadirachta Indica Linna  
G S



## LIVING WORLD

4. The first word should start with a capital letter while second word should start with a small letter.

5. The name of the author should be at the end of scientific name in abbreviated form.

Ex :  $\frac{\text{Mangifera}}{\text{Genus}} = \frac{\text{Indica}}{\text{Species}} \text{ Linn}$

- The first word should start with a capital letter while second word should start with a small letter.
- The name of the author should be at the end of scientific name in abbreviated form

- Ex :  $\frac{\text{Mangifera}}{\text{Genus}} = \frac{\text{Indica}}{\text{Species}} \text{ Linn}$

**THANK YOU**

