

YAKEEN NEET 2.0

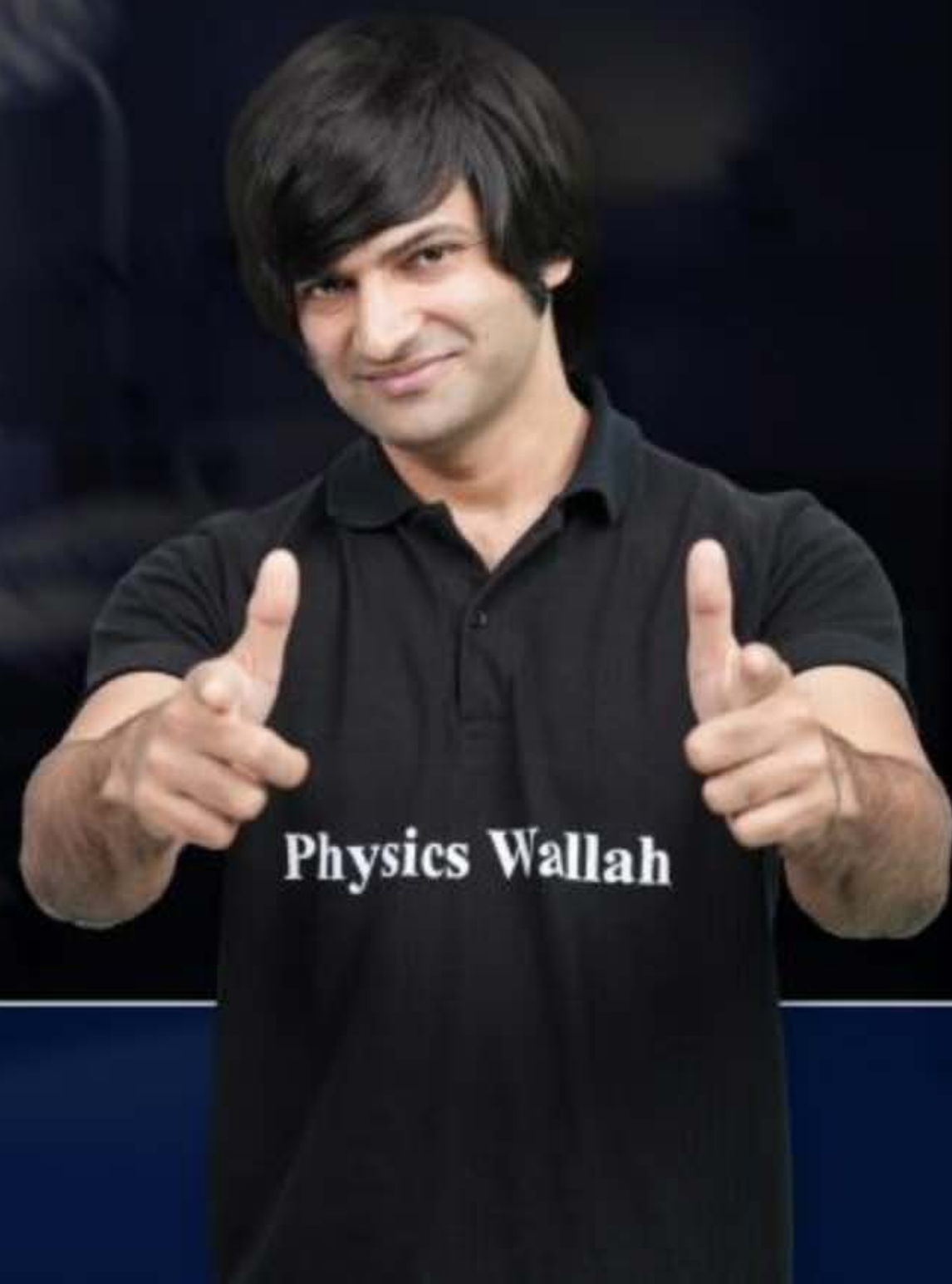
2026

The Living World

Botany

Lecture – 01

Rupesh Chaudhary Sir





Topics to be covered

1

DIVERSITY

2

3

4

CELL CYCLE & CELL DIV^N: TEST (50 QUESTION)

LIVING WORLD: TEST

THIS WEEK

↳ 1 HOUR: RECORDED LECTURE

PYQ (CELL CYCLE)

+ EXTRA QUESTION
(100)

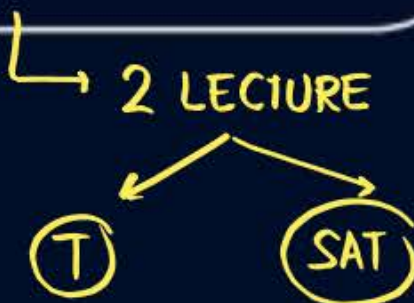
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The Living World



NEW NCERT

✓ 1st COMPLETE

What is living

GROWTH

REPR.

METABOLISM

CONSCIOUSNESS

COMPLETE
NOT IN DEPTH
NEED

DIVERSITY IN THE LIVING WORLD

- ★ VAST NO. AND DISTRIBUTION OF DIFFERENT SPECIES OF PLANT, ANIMAL, MICRO-ORGANISM ON EARTH: **BIODIVERSITY**
- ★ SPECIES KNOWN & DESCRIBED: 1.7 to 1.8 MILLIONS
- ★ LOCAL NAME: VARY (PLACE TO PLACE), CREATE CONFUSION
- ★ MUST HAVE ONE BIOLOGICAL/SCIENTIFIC NAME (ALL OVER WORLD): **NOMENCLATURE**
- ★ BUT BEFORE NAMING, MUST HAVE IDENTIFICATION OF ORGANISM.
- ★ SET OF RULES/PROCEDURE → FOLLOW

NAME

PLANT → ICBN : INTERNATIONAL CODE FOR FUNGI BOTANICAL NOMENCLATURE
ANIMAL → ICZN " " OF ZOOLOGICAL "

BIONOMIAL NOMENCLATURE → CAROLUS LINNAEUS (FATHER OF TAXONOMY)

- ★ ONE BIOLOGICAL/SCIENTIFIC NAME FOR ORGANISM

★ *Mangifera indica* Linn.

↓

1st WORD
(GENUS/
GENRIC NAME)

↓

2nd WORD
(SPECIES/
SPECIFIC
EPITHET)

- ★ IT CONSIST OF TWO WORDS

- ★ 1st LETTER OF GENUS: CAPITAL

- ★ " " " SPECIES: SMALL

- ★ BIOLOGICAL NAME GIVEN IN LATIN LANGUAGE (DEAD) & PRINTED IN ITALICS AND IF IT IS HANDWRITTEN THEN SEPERATELY UNDERLINED

Mangifera indica

- ★ NAME OF AUTHOR/DISCOVERER COME AFTER SPECIFIC EPITHET IN ABBREVIATION FORM.

NOTE: *Panthera leo* (LION)
Panthera tigris (tiger) GENUS CAN BE SAME

Pinus glabra
Ilex glabra SPECIFIC " " "
 EPITHET

CLASSIFICATION

CATEGORY (BIGGEST)	TAXON
KINGDOM :	PLANTAE
PHYLUM/ <u>DIVISION</u> :	ANGIOSPERMAE
CLASS :	DICOTYLEDONAE
ORDER :	POLYMONIALES
FAMILY :	SOLANACEAE
GENUS :	SOLANUM
SPECIES: (SMALLEST)	<i>S. tuberosum</i>

★ CLASSIFICATION IS NOT A SINGLE STEP.

★ BUT CONSIST OF MANY STEP.

★ EACH STEP: CATEGORY

★ REAL/OBLIGATE CATEGORY: SEVEN.

NOTE: SUB FAMILY, SUB CLASS: INTERMEDIATE CATEGORY.

★ EACH CATEGORY REPRESENT RANK → TAXON.

★ PHYLUM: ANIMAL

★ DIVISION: PLANT.

★ ASCENDING ORDER OF TAXONOMIC CATEGORY FROM SPECIES TO KINGDOM.
 : TAXONOMIC HIERARCHY.

SUFFIX

POLYMONIALES	ORDER (ALES)
POALES	
SAPINDALES	
CHLOROPHYCEAE	CLASS.
DICOTYLEDONAE	
BRYOPSIDA	
CHLOROPHYTA	DIVISION
SOLANACEAE	FAMILY
POACEAE	

Q. Wheat, Maize, Rice
SP. SP. SP.

DIFFERENT TAXON AT SAME LEVEL

Q. SP. Dog, CLASS Bryosida, ORDER Poales
P

DIFF. TAXON AT DIFFERENT LEVEL

Q. FAM. Solanaceae, FAM. Poaceae, FAM. Liliaceae

DIFF. TAXON. AT SAME LEVEL.

Q. KINGDOM Animal, CLASS mammals, SPECIES dog

DIFF TAXON AT DIFF. LEVEL.

TAXONOMY

- ★ ORGANISM CAN BE CLASSIFIED INTO DIFFERENT CATEGORY ON BASIS OF CHARACTER OR CHARACTERISATION, IDENTIFICATION, NOMENCLATURE
CLASSIFICATION OF ORGANISM.

- ★
- CLASSICAL TAX. : EXTERNAL/MORPHOLOGICAL/VEGETATIVE CHARACTER
 - MODERN TAX. : EXTERNAL & INTERNAL CHARACTER (CELL STRUCTURE, DEVELOPMENT PROCESS, ECOLOGICAL INFORMATION)
- BEST.

SYSTEMATICS

- ★ DERIVED FROM LATIN WORD 'SYSTEMA' → ARRANGEMENT OF ORGANISM.
- ★ LINNAEUS: BOOK: SYSTEMA NATURE (SCIENTIFIC NAME OF ANIMAL)
- ★ TAXONOMY + PHYLOGENY (EVOLUTIONARY HISTORY/RELATIONSHIP) = SYSTEMATICS
- ★ CHARACTERISATION, IDENTIFICATION, NOMENCLATURE CLASSIFICATION + PHYLOGENY. = SYSTEMATICS

TAXONOMIC CATEGORIES

SPECIES

- ★ BASIC / SMALLEST UNIT OF CLASSIFICATION
- ★ TERM: JOHN RAY.
- ★ BIOLOGICAL CONCEPT OF SPECIES: MAYR'S.
- ★ INDIVIDUALS WHICH ARE INTERBREEDING TOGETHER (REPRODUCTION), FUNDAMENTAL SIMILARITIES: CONSIDERED AS ONE SPECIES
- ★ ONE SPECIES REPRODUCTIVELY ISOLATED FROM OTHER SPECIES.

Panthera tigris tiger

Panthera leo LION

Panthera pardus LEOPARD



Homework from **YAKEEN NEET 2.0 2026** Module



MODULE: CELL CYCLE (NCERT BASED)

SOLVE करेंगे !

THANK
YOU