

EXAM-DAY · 90-MIN REVISION CARD

## The Living World

Print this · Fold it · Carry to the exam-hall gate · Revise once · Then walk in.

### FORMULAS & KEY RESULTS

Defining properties of life:  
METABOLISM + CELLULAR ORGANISATION + CONSCIOUSNESS (the truly defining trio).

NOT defining (universal):  
GROWTH (non-living grows by accretion; adults stop) and REPRODUCTION (mules, sterile bees don't reproduce).

Consciousness = the ULTIMATE defining property (sense and respond to environment).

Described species ≈ 1.7-1.8 million; need for classification = handle this diversity systematically.

Binomial nomenclature (Linnaeus): two Latin words — Genus (Capital) + species (lowercase). e.g. *Mangifera indica*.

Script rule: PRINT in italics; HANDWRITE underlined separately. Author name follows species, e.g. *Mangifera indica* Linn.

Governing codes: ICBN (botanical / plants), ICZN (zoological / animals).

Hierarchy (descending):  
Kingdom > Phylum/Division > Class > Order > Family > Genus > Species.

Species = BASIC (obligate, lowest) unit of classification.  
Genus = group of related species.

Taxon = a real group of organisms at a rank; Category = the abstract rank itself.

Taxonomy = identification + nomenclature + classification.  
Systematics = taxonomy + evolutionary relationships (from Latin 'systema').

Taxonomical aids: Herbarium, Botanical Garden, Museum,

### TOP 5 PYQ PATTERNS

- 1 Why are growth & reproduction NOT defining properties of all living organisms?**  
3 marks · 90% of years  
Accretion/mountain example for growth; mule & sterile worker bee for reproduction; conclude with metabolism + cellular organisation + consciousness.
- 2 State the rules of binomial nomenclature with *Mangifera indica***  
3 marks · 85% of years  
Two Latin words; Genus capital + species lowercase; italics/underline; author after; ICBN/ICZN.
- 3 Arrange taxonomic categories / define species as basic unit**  
2 marks · 75% of years  
Kingdom → ... → Species; species = lowest obligate interbreeding group.
- 4 Differentiate taxonomy vs systematics OR taxon vs category**  
2 marks · 55% of years  
Two-column table; systematics adds evolutionary relationships; taxon = group, category = rank.
- 5 What is a herbarium / name two taxonomical aids and their uses**  
2 marks · 60% of years  
Herbarium = dried-pressed specimens on sheets with labels; add botanical garden / museum / zoo / key / flora.

### 90-MIN REVISION FLOW

#### 0-15 min

Write from memory the three TRULY defining properties of life, and explain in one line each why growth and reproduction are NOT universally defining (with examples).

#### 15-30 min

Write the binomial nomenclature rules in full using *Mangifera indica*, including italics/underline, capitalisation, author citation, and the ICBN/ICZN codes.

#### 30-45 min

Recite and write the seven-rank hierarchy three times (Kingdom → Species); then place mango and human into the full hierarchy.

#### 45-60 min

Make two quick tables from memory: Taxon vs Category, and Taxonomy vs Systematics. List all taxonomical aids with one use each.

#### 60-75 min

Take the 15-MCQ Quick Drill under a 20-minute timer. Target ≥ 12/15.

#### 75-90 min

Review every wrong answer; re-read the matching notes slide. Done.

Zoological Park, Key, Flora/  
Manual/Monograph/Catalogue.

**Confidence, not anxiety.** You've practised this all year. Trust your steps. Don't change strategy on exam morning.  
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