

EXAM-DAY · 90-MIN REVISION CARD

Biological Classification

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

FORMULAS & KEY RESULTS

5-K (Whittaker 1969) = Monera + Protista + Fungi + Plantae + Animalia

Basis = cell type · body organisation · nutrition · reproduction · phylogeny

Monera = ONLY prokaryotic kingdom; cell wall = peptidoglycan; Archaea + Eubacteria

Protista = ALL single-celled eukaryotes; chrysophytes, dinoflagellates, euglenoids, slime moulds, protozoans

Fungi cell wall = CHITIN (not cellulose); reserve food = glycogen + oil

Fungi classes = Phyco (zoospores) · Asco (ascospores) · Basidio (basidiospores) · Deutero (no sexual stage)

Plantae cell wall = cellulose; Animalia = no cell wall, holozoic nutrition

Virus = nucleic acid + protein coat; Viroid = RNA only; Prion = protein only

Lichen = alga (phycobiont) + fungus (mycobiont) → mutualism; air-pollution indicator

3-domain (Woese 1990) = Bacteria · Archaea · Eukarya (rRNA-based)

TOP 5 PYQ PATTERNS

1 Compare the 5 kingdoms on 3-5 features (table)

5 marks · 95% of years

Always a table, never a paragraph; name Whittaker + 1969 in the opener

2 Archaea vs Eubacteria differences with examples

3 marks · 70% of years

2-column table; cell-wall chemistry + habitat + examples

3 Virus link / Viroid / Prion definitions

2 marks · 80% of years

Contrast living vs non-living for virus; for viroid+prion give discoverer + disease example

4 Lichen — composition + ecological role

2 marks · 65% of years

Phycobiont + mycobiont; air-pollution indicator; examples Cladonia / Usnea

5 Two fungi classes compared on spores + mycelium + example

3 marks · 55% of years

Asexual spore name, sexual spore name, mycelium type, common example

90-MIN REVISION FLOW

0-15 min

Read the classification timeline (Aristotle → Woese) and memorise dates + the FIVE bases of Whittaker's system.

15-35 min

Draw the 5-kingdom comparison table from memory (6 columns × 5-7 rows). Self-check against cheat sheet.

35-55 min

Monera deep-dive — Archaea (3 types) vs Eubacteria (4 types: cyanobacteria, heterotrophic, chemoautotroph, mycoplasma). Sketch a cyanobacterium with heterocyst.

55-70 min

Fungi — write the 4-class table (Phyco/Asco/Basidio/Deutero) with asexual + sexual spore names + one example each. Memorise mycelium types.

70-80 min

Misfits — virus vs viroid vs prion (one-line each). Lichen partnership. Three-domain system (1 line).

80-90 min

Attempt 5 mixed PYQs (1×5-mark + 1×3-mark + 3×1-mark). Mark-yourself using marking scheme.

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