

EXAM-DAY · 90-MIN REVISION CARD

Plant Kingdom

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

FORMULAS & KEY RESULTS

Plant ladder = Algae →
Bryophytes → Pteridophytes →
Gymnosperms → Angiosperms
(rising complexity)

Algae 3 classes =
Chlorophyceae (green, starch) ·
Phaeophyceae (brown,
mannitol/laminarin) ·
Rhodophyceae (red, floridean
starch)

Pigments: green = chl a+b ·
brown = fucoxanthin · red = r-
phycoerythrin

Bryophytes = 'amphibians of
plant kingdom'; gametophyte
(n) DOMINANT; need water for
fertilisation; only rhizoids

Pteridophytes = FIRST vascular
plants; seedless; reproduce by
spores in sori; sporophyte
dominant

Gymnosperms = NAKED seeds
(no ovary/fruit); cones; single
fertilisation; Cycas, Pinus,
Ginkgo

Angiosperms = flowers + seeds
in ovary/fruit; DOUBLE
fertilisation; mono vs dicot

Monocot = 1 cotyledon · parallel
venation · fibrous root ·
trimerous flowers

Dicot = 2 cotyledons · reticulate
venation · taproot · tetra/
pentamerous flowers

Life cycles: Haplontic
(gametophyte dominant) ·
Diplontic (sporophyte dominant)
· Haplo-diplontic (both)

TOP 5 PYQ PATTERNS

1 Compare 3 algal classes on pigment, food, wall (table)

5 marks · 90% of years

Always a table; pigment + stored-food rows carry
the most weight

2 Alternation of generations + haplontic/diplontic/haplo-diplontic

3 marks · 70% of years

Define + one example each; name meiosis and
fertilisation as the two switches

3 Bryophytes as 'amphibians of plant kingdom'

2 marks · 75% of years

Land habit but water needed for fertilisation;
antherozoid swims to egg

4 Gymnosperm vs angiosperm differences

3 marks · 65% of years

2-column table; naked vs enclosed seed, single vs
double fertilisation, examples

5 Monocot vs dicot distinctions

2 marks · 55% of years

Cotyledon, venation, root, floral symmetry — one
mark per clean contrast

90-MIN REVISION FLOW

0-15 min

Memorise the plant ladder (Algae →
Angiosperms) and tag each rung as
vascular/non-vascular and seed/
seedless.

15-35 min

Draw the 3-algal-class table from
memory (4 columns × 5 rows). Self-
check pigments + stored food
against the cheat sheet.

35-55 min

Alternation of generations — sketch
the generic life-cycle ring; classify
haplontic / diplontic / haplo-
diplontic with one example each.

55-70 min

Bryophytes + pteridophytes — write
why bryophytes are 'amphibians',
and the fern sporophyte-prothallus
cycle.

70-80 min

Seed plants — gymnosperm (naked
seed, Cycas/Pinus) vs angiosperm
(double fertilisation) + monocot/
dicot table.

80-90 min

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