

NEET PLANT KINGDOM — PLANT LIFE CYCLES AND ALTERNATION OF GENERATIONS — PYQS

Max. Marks: 44

Questions: 11

Section A (MCQ) — 11 questions

Q.1 Match the plant with the kind of life cycle it exhibits:

List - I		List - II	
a.	Spirogyra	i.	Dominant diploid sporophyte vascular plant, with highly reduced male or female gametophyte
b.	Fern	ii.	Dominant haploid free-living gametophyte
c.	Funaria	iii.	Dominant diploid sporophyte alternating with reduced gametophyte called prothallus
d.	Cycas	iv.	Dominant haploid leafy gametophyte alternating with partially dependent multicellular sporophyte

Choose the correct answer from the options given below : [NEET (UG) 2022]

- (1) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
 (2) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 (3) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
 (4) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)

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Q.2 Zygotic meiosis is characteristic of [NEET 2017]

- (1) *Fucus* (2) *Funaria*
 (3) *Chlamydomonas* (4) *Marchantia*

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Q.3 Life cycles of *Ectocarpus* and *Fucus* respectively are [NEET 2017]

- (1) diplontic, haplodiplontic
 (2) haplodiplontic, diplontic
 (3) haplodiplontic, haplontic
 (4) haplontic, diplontic

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Q.4 Read the following five statements (A to E) and select the option with all correct statements.

- A. Mosses and lichens are the first organisms to colonise a bare rock.
 B. *Selaginella* is a homosporous pteridophyte.
 C. Coralloid roots in *Cycas* have VAM.
 D. Main plant body in bryophytes is gametophytic, whereas in pteridophytes it is sporophytic.
 E. In gymnosperms, male and female gametophytes are present within sporangia located on sporophyte. [AIPMT 2015 (Cancelled)]

- (1) A, D and E (2) B, C and E
 (3) A, C and D (4) B, C and D

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Q.5 Read the following statements (A – E) and answer the question which follows them.

How many of the above statements are correct?

- A. In liverworts, mosses and ferns gametophytes are free-living.
 B. Gymnosperms and some ferns are heterosporous.
 C. Sexual reproduction in *Fucus*, *Volvox* and *Albugo* is oogamous.
 D. The sporophyte in liverworts is more elaborate than that in mosses.
 E. Both, *Pinus* and *Marchantia* are dioecious.

[NEET 2013]

- (1) Three (2) Four (3) One (4) Two

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Q.6 What is common in all the three, *Funaria*, *Dryopteris* and *Ginkgo*? [NEET 2013 (Karnataka)]

- (1) Presence of archegonia
 (2) Well developed vascular tissues
 (3) Independent gametophyte
 (4) Independent sporophyte

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Q.7 Read the following five statements (A – E) and answer as asked next to them.

How many of the above statements are correct?

- A. In *Equisetum*, the female gametophyte is retained on the parent sporophyte.

- B. In *Ginkgo*, male gametophyte is not independent.
 C. The sporophyte in *Riccia* is more developed than that in *Polytrichum*.
 D. Sexual reproduction in *Volvox* is isogamous.
 E. The spores of slime moulds lack cell walls.

[AIPMT 2012 (Mains)]

- (1) Two (2) Three (3) Four (4) One

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full solution



Q.8 Consider the following four statements whether they are correct or wrong.

The two wrong statements together are

- A. The sporophyte in liverworts is more elaborate than that in mosses.
 B. *Salvinia* is heterosporous.
 C. The life-cycle in all seed-bearing plants is diplontic.
 D. In *Pinus* male and female cones are borne on different trees.

[AIPMT 2011 (Mains)]

- (1) A and C (2) A and D (3) B and C (4) A and B.

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Q.9 Compared with the gametophytes of the bryophytes, the gametophytes of vascular plants tend to be

[AIPMT 2011 (Prelims)]

- (1) smaller but to have larger sex organs
 (2) larger but to have smaller sex organs
 (3) larger and to have larger sex organs
 (4) smaller and to have smaller sex organs

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full solution



Q.10 Which one of the following has haplontic life cycle?

[AIPMT 2009]

- (1) *Polytrichum* (2) *Ustilago*
 (3) Wheat (4) *Funaria*

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Q.11 Flagellated male gametes are present in all the three of which one of the following sets? [AIPMT 2007]

- (1) *Zygnema*, *Saprolegnia* and *Hydrilla*
 (2) *Fucus*, *Marsilea* and *Calotropis*
 (3) *Riccia*, *Dryopteris* and *Cycas*
 (4) *Anthoceros*, *Funaria* and *Spirogyra*

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	2	3	2	1	1	1	4	2	4	2	3