

NEET SEXUAL REPRODUCTION IN FLOWERING PLANTS — APOMIXIS AND POLYEMBRYONY — PYQS

Max. Marks: 28

Questions: 7

Section A (MCQ) — 7 questions

Q.1 Which of the following can be expected if scientists succeed in introducing apomictic gene into hybrid varieties of crops? [NEET (UG) 2022 (Phase 2)]

- (1) There will be segregation of the desired characters only in the progeny
- (2) Polyembryony will be seen and each seed will produce many plantlets
- (3) Seeds of hybrid plants will show longer dormancy
- (4) Farmers can keep on using the seeds produced by the hybrids to raise new crop year after year

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Q.2 Seed formation without fertilisation in flowering plants involves the process of [NEET 2016 (Phase 1)]

- (1) somatic hybridisation
- (2) apomixis
- (3) sporulation
- (4) budding.

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Q.3 What is common between vegetative reproduction and apomixis? [AIPMT 2011 (Mains)]

- (1) Both are applicable to only dicot plants
- (2) Both bypass the flowering phase
- (3) Both occur round the year
- (4) Both produce progeny identical to the parent.

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Q.4 Nucellar polyembryony is reported in species of

[AIPMT 2011 (Prelims)]

- (1) *Citrus*
- (2) *Gossypium*
- (3) *Triticum*
- (4) *Brassica*.

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Q.5 Apomictic embryos in *Citrus* arise from

[AIPMT 2010 (Prelims)]

- (1) synergids
- (2) maternal sporophytic tissue in ovule
- (3) antipodal cells
- (4) diploid egg

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Q.6 In a type of apomixis known as adventive embryony, embryos develop directly from the

[AIPMT 2005]

- (1) nucellus or integuments
- (2) zygote
- (3) synergids or antipodals in an embryo sac
- (4) accessory embryo sacs in the ovule.

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Q.7 Adventive embryony in *Citrus* is due to

[AIPMT 2001]

- (1) nucellus
- (2) integuments
- (3) zygotic embryo
- (4) fertilized egg.

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ANSWER KEY

Ques.	1	2	3	4	5	6	7				
Ans.	4	2	4	1	2	1	1				