GATE XL (BOTANY)

Life Cycle of an Angiosperm

1. Multiple-Choice Question (MCQ)

Which of the following structures is haploid in the life cycle of an angiosperm?

A) Endosperm

B) Megaspore

C) Zygote

D) Microsporocyte

Answer: B) Megaspore

2. Numerical Answer Type (NAT)

In angiosperms, how many mitotic divisions does a functional megaspore undergo to form the embryo sac? (Enter the numerical value)

Answer: 3

3. Multiple-Choice Question (MCQ)

Double fertilization in angiosperms results in the formation of:

A) Embryo and seed coat

B) Embryo and endosperm

C) Embryo sac and pollen tube

D) Megaspore and microspore

Answer: B) Embryo and endosperm

4. Multiple-Select Question (MSQ)

Which of the following statements about the life cycle of an angiosperm are correct?

A) Microspores develop into pollen grains

- B) The embryo sac is a diploid structure
- C) Endosperm formation occurs due to triple fusion
- D) The mature ovule develops into a seed

Answer: A, C, and D

5. Numerical Answer Type (NAT)

How many cells are present in a typical mature embryo sac of an angiosperm? (Enter the numerical value)

Answer: 7

DPT