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Class 9 · Biology · Plant Physiology

CHAPTER 9

Reproduction in Plants

83 Solved MCQs • Answer Keys • Detailed Explanations

Vegetative & Artificial Propagation

Sexual Reproduction

Flower Structure & Fertilization

Prepared for CSS / PMS & School Exam Aspirants

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What's Inside This Deck

Total — 83 MCQs across 14 topic sections | scholareye.xyz

Q1 of 83

What is the process by which organisms produce new organisms of their own kind called?

A Nutrition

✓ **Reproduction**

C Respiration

D Excretion

💡 **Explanation**

Reproduction is defined as the process in which organisms produce new organisms of their own kind, ensuring continuity of the species.

Q2 of 83

Reproduction that does NOT involve the fusion of gametes is called:

A Sexual reproduction

B Cross-pollination

✓ **Asexual reproduction**

D Fertilization

💡 Explanation

Asexual reproduction produces offspring without the fusion of male and female gametes, so the offspring are genetically identical to the parent.

Q3 of 83

The offspring produced by asexual reproduction are:

✓ **Genetically identical to the parent**

B Always sterile

C Genetically variable

D Haploid organisms

💡 **Explanation**

Since asexual reproduction involves only one parent and no fusion of gametes, offspring are genetically identical clones of that parent.

Q4 of 83

Reproduction that involves the fusion of male and female gametes is called:

A Vegetative propagation

✓ **Sexual reproduction**

C Budding

D Grafting

💡 **Explanation**

Sexual reproduction involves the fusion of male and female gametes, producing offspring with genetic variation.

Q5 of 83

Why do offspring of sexual reproduction show variation among themselves and with parents?

A Because only one parent is involved

✓ **Because gametes from two parents fuse, combining genetic material**

C Because no gametes are formed

D Because the process occurs underground

💡 **Explanation**

In sexual reproduction, gametes from two different parents fuse to form a zygote, mixing genetic material and producing variation in the offspring.

Q6 of 83

Vegetative propagation is a method of:

A Sexual reproduction

✓ **Asexual reproduction**

C Pollination

D Fertilization

💡 **Explanation**

Vegetative propagation is a method of asexual reproduction in which a new plant develops from the vegetative part (root, stem or leaf) of the parent plant.

Q7 of 83

In vegetative propagation, a new plant is produced from which part of the parent plant?

A Only flowers

B Only seeds

✓ **The vegetative part (root, stem or leaf)**

D Only fruit

💡 **Explanation**

Vegetative propagation uses the vegetative parts — root, stem, or leaf — of the parent plant to produce a new plant, rather than seeds or flowers.

Q8 of 83

Compared to sexual reproduction, vegetative propagation:

A Takes much more time to produce new generations

✓ **Takes much less time to produce new generations**

C Cannot produce new plants at all

D Only works in animals

💡 **Explanation**

Vegetative propagation takes much less time to produce a new generation compared to the sexual method, since it skips flowering, pollination, and fertilization.

Q9 of 83

Vegetative propagation may occur:

A Only naturally

B Only artificially

✓ **Naturally or artificially**

D Neither naturally nor artificially

💡 **Explanation**

Vegetative propagation can be natural, where plants reproduce on their own, or artificial, where humans deliberately use vegetative parts to propagate plants.

Q10 of 83

A stolon (runner) is best described as:

A. A fleshy underground stem

✓ **A horizontal stem that grows above the ground**

C. A short underground stem with buds

D. A modified leaf

💡 **Explanation**

A stolon, or runner, is a horizontal stem that grows above the ground and has nodes where new leaves and roots develop.

Q11 of 83

In a stolon, new leaves and roots grow at the:

A Tip only

B Base only

✓ **Nodes**

D Flower

💡 **Explanation**

A stolon has nodes where new leaves grow upward and roots grow downward, forming a new plant at each node.

Q12 of 83

Which plant reproduces by using its stolon, as shown by its runners?

A Potato

B Ginger

✓ **Strawberry**

D Onion

💡 **Explanation**

The strawberry plant reproduces by using its stolon (runner); new plants form at the nodes along this horizontal above-ground stem.

Q13 of 83

A tuber is a:

A Horizontal stem growing above the ground

✓ **Fleshy stem that grows underground**

C Bud-bearing short stem with fleshy leaves

D Type of root

💡 **Explanation**

A tuber is a fleshy underground stem. It has 'eyes,' which are actually buds that can grow into new plants.

Q14 of 83

The 'eyes' of a potato tuber are actually its:

A Roots

✓ **Buds**

C Flowers

D Leaves

💡 **Explanation**

The eyes on a potato are its buds; each eye can sprout and grow into a new potato plant, which is how potatoes reproduce by tubers.

Q15 of 83

Which of these plants reproduces through tubers?

A Strawberry

B Ginger

✓ **Potato**

D Tulip

💡 **Explanation**

Potatoes reproduce by tubers — fleshy underground stems bearing buds ('eyes') that sprout into new plants.

Q16 of 83

A rhizome is defined as:

✓ **A horizontal stem that grows below the ground**

B A vertical stem that grows above the ground

C A fleshy leaf

D A type of fruit

💡 **Explanation**

A rhizome is a horizontal stem that grows below the ground; it has nodes from which new leaves and roots emerge, forming new plants.

Q17 of 83

Which of the following plants does NOT reproduce by rhizome?

A Ferns

B Ginger

C Sugar cane

✓ **Onion**

💡 **Explanation**

Ferns, ginger, and sugar cane reproduce using rhizomes. Onion instead reproduces through a bulb, not a rhizome.

Q18 of 83

A bulb is:

A A horizontal underground stem with nodes

✓ **A very short underground stem with a bud and fleshy leaves**

C A stem that grows above ground with nodes

D A modified root only

💡 **Explanation**

A bulb is a very short stem that grows underground, bearing a bud and fleshy leaves; it grows naturally to produce new plants.

Q19 of 83

Which of these plants reproduce by bulbs?

A Potatoes and gingers

B Ferns and sugar cane

✓ **Tulips, onions, and lilies**

D Dasheen and garlic

💡 **Explanation**

Tulips, onions, and lilies reproduce by bulbs, which are short underground stems bearing a bud surrounded by fleshy leaves.

Q20 of 83

How does a corm differ from a bulb?

A A corm has fleshy leaves while a bulb does not

✓ **A corm does not have fleshy leaves, while a bulb does**

C A corm grows above ground while a bulb grows below

D There is no difference between them

💡 **Explanation**

A corm resembles a bulb but does not have fleshy leaves. Almost all of a corm consists of stem, with a few brown non-functional leaves on the outside.

Q21 of 83

Dasheen and garlic reproduce by:

✓ **Corms**

B Bulbs

C Rhizomes

D Stolons

💡 **Explanation**

Dasheen and garlic reproduce by corms — short underground stems consisting mostly of stem tissue with a few dry, non-functional outer leaves.

Q22 of 83

Which structure in an onion bulb stores food and helps in propagation?

A Brown leaves

✓ **Fleshy leaves**

C Corm

D Stolon

💡 **Explanation**

In an onion bulb, the fleshy leaves surrounding the bud store food, allowing the bud to grow into a new plant.

Q23 of 83

In a garlic corm, the outer covering consists of:

A Fleshy green leaves

✓ **Brown non-functional leaves**

C Roots

D Flowers

💡 **Explanation**

A corm, such as in garlic, consists almost entirely of stem tissue, with only a few dry brown non-functional leaves on the outside.

Q24 of 83

Which of the following correctly matches the plant with its vegetative propagation structure?

A Potato – bulb

✓ **Ginger - rhizome**

C Strawberry – corm

D Onion – tuber

💡 **Explanation**

Ginger reproduces through a rhizome, a horizontal underground stem with nodes from which new shoots and roots emerge.

Q25 of 83

Which underground stem structure has nodes from which BOTH new leaves and roots grow, similar to an above-ground stolon?

A Bulb

B Corm

✓ **Rhizome**

D None of these

💡 **Explanation**

Like a stolon, a rhizome has nodes where new leaves and roots grow, but a rhizome does so underground while a stolon does so above ground.

Q26 of 83

Suckers are new shoots that emerge from:

A The tip of the leaf

✓ **The base of the parent plant or its underground roots**

C The flower petals

D The fruit

💡 **Explanation**

Suckers are new shoots that emerge from the base of the parent plant or from its underground roots, growing into new plants while attached to the parent.

Q27 of 83

A sucker becomes an independent plant when it:

A Flowers for the first time

✓ **Develops its own root system**

C Is cut into pieces

D Loses its leaves

💡 Explanation

While suckers are attached to the parent, they grow into new plants; once they develop their own root system, they become independent of the parent plant.

Q28 of 83

Which of the following plants are examples of propagation through suckers?

✓ **Banana and raspberry**

B Potato and ginger

C Onion and garlic

D Bryophyllum and strawberry

💡 **Explanation**

Banana and raspberry plants are examples of vegetative propagation through suckers — shoots that arise from the base or roots of the parent plant.

Q29 of 83

In modified leaves used for vegetative propagation, buds are located at the:

A Center of the leaf

✓ **Margins of the leaf**

C Root tip

D Stem apex only

💡 **Explanation**

In plants like Bryophyllum, the leaves are modified for vegetative propagation and have buds at their margins, which grow into new plants when the leaf falls to the ground.

Q30 of 83

Bryophyllum is a classic example of vegetative propagation through:

A Tubers

✓ **Modified leaves**

C Corms

D Stolons

💡 **Explanation**

Bryophyllum reproduces vegetatively through modified leaves that bear buds at their margins; these buds grow into new plants when the leaf falls on the ground.

Q31 of 83

Artificial propagation refers to methods in which:

A Plants reproduce entirely on their own

✓ **Humans use the vegetative parts of plants to produce new plants**

C Only seeds are used to grow new plants

D Only pollination occurs naturally

💡 Explanation

Artificial propagation includes methods in which humans deliberately use the vegetative parts of plants — such as cutting, grafting, or tissue culture — to produce new plants.

Q32 of 83

Which of the following is NOT listed as a common technique of artificial propagation?

A Cutting

B Grafting

C Tissue culture

✓ **Pollination**

💡 **Explanation**

Cutting, grafting, and tissue culture are techniques of artificial propagation. Pollination is a step in sexual reproduction, not an artificial propagation technique.

Q33 of 83

A piece of stem or root cut from a plant and used to grow a new plant is called a:

A Graft

✓ **Cutting**

C Sucker

D Rhizome

💡 **Explanation**

Such a cut piece of stem or root that is used to grow a new plant is called a cutting, and it is widely used to propagate houseplants, trees, shrubs, and some fruit crops.

Q34 of 83

Roses and grapevines are typically grown from which kind of cuttings?

A Root cuttings

B Leaf cuttings

✓ **Stem cuttings**

D Flower cuttings

💡 **Explanation**

Roses and grapevines are grown from stem cuttings, where a piece of stem cut from the parent plant develops roots and grows into a new plant.

Q35 of 83

Sweet potato is grown from:

A Stem cuttings

✓ **Root cuttings**

C Seed only

D Grafting only

💡 **Explanation**

Unlike roses and grapevines (stem cuttings), sweet potato is propagated using root cuttings.

Q36 of 83

Grafting is defined as:

A Cutting a root and planting it directly

✓ **The joining of two or more plant parts of the same type to form a single plant**

C Producing seeds through pollination

D Growing plants only from bulbs

💡 **Explanation**

Grafting is the joining of two or more plant parts of the same type (e.g., stems) to form a single plant, combining traits from different plants.

Q37 of 83

In grafting, a bud or small stem of one plant is attached to the:

A Leaves of a second plant

✓ **Roots or stems of a second plant**

C Fruit of a second plant

D Flowers of a second plant

💡 **Explanation**

In grafting, a bud or small stem of one plant is attached to the roots or stems of a second plant, enabling the beneficial characteristics of both plants to combine.

Q38 of 83

Grafting is commonly used to propagate:

A Only vegetables

✓ **Commercial fruit trees such as almond, plum, and cherries**

C Only grasses

D Only aquatic plants

💡 **Explanation**

Grafting is used to propagate almost all commercial fruit trees (e.g., almond, plum, cherries) and many ornamental trees and shrubs, combining beneficial traits of two plants.

Q39 of 83

One major advantage of vegetative propagation is that it allows:

✓ **Production of many new plants in a short time**

B Increased genetic variation among offspring

C Formation of seeds with new traits

D Slower multiplication of desirable plants

💡 **Explanation**

Vegetative propagation allows many new plants to be produced quickly, and since new plants are exactly like the parent, useful qualities are reliably passed on.

Q40 of 83

Since plants produced through vegetative propagation are genetically identical, a major disadvantage is that they:

A Cannot grow at all

✓ **Are equally sensitive to the same diseases or pests**

C Always grow taller than the parent

D Never reproduce again

💡 Explanation

Because all offspring of vegetative propagation are genetically identical (no genetic differences), they are equally sensitive to environmental changes and prone to the same diseases or pests.

Q41 of 83

Vegetatively propagated plants have the same good characteristics as the parent because:

A They arise from fusion of gametes

✓ **They are genetically identical to the parent**

C They undergo meiosis

D They are formed from spores

💡 **Explanation**

Since no fusion of gametes is involved, vegetatively propagated plants are exact genetic copies of the parent, so useful traits like good fruit or strong growth are passed on reliably.

Q42 of 83

A key drawback of vegetative propagation, in terms of genetic diversity, is:

A Excess genetic variation among offspring

✓ **Lack of genetic differences among offspring**

C Formation of extra chromosomes

D Loss of the parent plant's traits

💡 **Explanation**

Plants produced through vegetative propagation lack genetic differences — all offspring are identical, which reduces the population's ability to adapt to changing conditions or resist new diseases.

Q43 of 83

The two generations that occur one after the other during sexual reproduction in major plant groups are:

✓ **Sporophyte and gametophyte**

B Cutting and grafting

C Bulb and corm

D Stolon and rhizome

💡 **Explanation**

Plants undergo an alternation of generations between a sporophyte generation and a gametophyte generation during sexual reproduction.

Q44 of 83

The sporophyte generation produces:

A Gametes directly

✓ **Spores, which grow into the gametophyte generation**

C Seeds directly without spores

D Fruit only

💡 **Explanation**

The sporophyte generation produces spores by meiosis; these spores develop into the new gametophyte generation.

Q45 of 83

The gametophyte generation produces:

A Spores that make the sporophyte

✓ **Gametes, which unite to form the new sporophyte generation**

C Fruit

D Roots only

💡 **Explanation**

The gametophyte generation produces gametes; when these gametes unite, they form a zygote that develops into the new sporophyte generation.

Q46 of 83

This repeating cycle between spore-producing and gamete-producing generations is called:

A Pollination

B Fertilization

✓ **Alternation of generations**

D Vegetative propagation

💡 **Explanation**

The phenomenon in which sporophyte and gametophyte generations follow one after another is called alternation of generations.

Q47 of 83

In the alternation of generations, the sporophyte (2n) produces haploid (1n) spores by which process?

A Mitosis

✓ **Meiosis**

C Fertilization

D Pollination

💡 **Explanation**

The diploid (2n) sporophyte generation produces haploid (1n) spores through meiosis, a reduction division that halves the chromosome number.

Q48 of 83

In angiosperms, the organs for sexual reproduction are:

A Leaves

B Roots

✓ **Flowers**

D Stems

💡 **Explanation**

In angiosperms (flowering plants), flowers are the organs specialized for sexual reproduction.

Q49 of 83

The swollen tip of a flower stalk, where all floral parts are attached, is called the:

✓ **Receptacle**

B Calyx

C Corolla

D Pistil

💡 **Explanation**

The receptacle is the swollen tip of the flower stalk that serves as the base supporting all the floral parts.

Q50 of 83

The outermost whorl of a flower, made of green leaf-like sepals, is called the:

A Corolla

✓ **Calyx**

C Androecium

D Gynoecium

💡 **Explanation**

The calyx is the outermost whorl of a flower, composed of green, leaf-like sepals that protect the inner floral parts before the flower opens.

Q51 of 83

What is the main function of sepals?

A Attract pollinators with colour

B Produce pollen grains

✓ **Protect the inner parts of a developing flower before it opens**

D Produce ovules

💡 **Explanation**

Sepals, which make up the calyx, protect the inner parts of a developing flower before it opens.

Q52 of 83

The corolla is the whorl of a flower made up of:

A Sepals

✓ **Petals**

C Stamens

D Carpels

💡 **Explanation**

The corolla is the second whorl of the flower and is made of petals; most flowers have coloured petals to attract pollinators.

Q53 of 83

The androecium is the third whorl of a flower, made up of male reproductive structures called:

A Carpels

B Sepals

✓ **Stamens**

D Petals

💡 Explanation

The androecium is made up of stamens, the male reproductive structures, each consisting of an anther and a filament.

Q54 of 83

Each stamen consists of:

✓ **An anther and a filament**

B A stigma and a style

C An ovary and ovules

D Sepals and petals

💡 **Explanation**

A stamen consists of an anther, which contains pollen sacs producing microspores, and a filament, the stalk-like part that supports the anther.

Q55 of 83

The innermost whorl of a flower, made of female reproductive structures called carpels, is the:

A Calyx

B Corolla

C Androecium

✓ **Gynoecium**

💡 **Explanation**

The gynoecium is the innermost whorl, made up of carpels — the female reproductive structures of the flower.

Q56 of 83

The enlarged base of the carpel, where ovules are produced, is called the:

A Stigma

B Style

✓ **Ovary**

D Filament

💡 **Explanation**

The ovary is the enlarged base of the carpel and is the part where ovules are produced; ovules produce megaspores during reproduction.

Q57 of 83

The stalk-like part of the carpel that connects the stigma to the ovary is called the:

✓ **Style**

B Filament

C Sepal

D Petal

💡 **Explanation**

The style is the stalk-like part attached to the ovary; it connects the ovary to the stigma at its tip.

Q58 of 83

The tip of the style, which receives pollen grains, is called the:

A Ovary

✓ **Stigma**

C Anther

D Receptacle

💡 **Explanation**

The stigma is the tip of the style; it is the surface on which pollen grains land during pollination.

Q59 of 83

When one or more carpels are fused together into a single structure, this structure is called a:

A Stamen

✓ **Pistil**

C Sepal

D Corm

💡 **Explanation**

In some flowers, one or more carpels are fused together to form a structure called a pistil.

Q60 of 83

The ovule acts as the:

A Microsporangium

✓ **Megasporangium**

C Anther

D Filament

💡 **Explanation**

The ovule functions as the megasporangium — the structure in which megaspores are produced through meiosis.

Q61 of 83

Inside the ovule, the diploid cell that undergoes meiosis to produce four haploid megaspores is the:

A Microspore mother cell

✓ **Megaspore mother cell**

C Generative cell

D Tube cell

💡 **Explanation**

The megaspore mother cell, which is diploid, undergoes meiosis and produces four haploid megaspores.

Q62 of 83

Out of the four megaspores produced, how many typically survive to develop into the embryo sac?

A All four

B Three

C Two

✓ **Only one**

💡 **Explanation**

Of the four haploid megaspores produced by meiosis, only one megaspore remains alive and develops further into the embryo sac (female gametophyte).

Q63 of 83

Inside the surviving megaspore, eight haploid nuclei are formed by:

A Meiosis

✓ **Mitosis**

C Fertilization

D Pollination

💡 **Explanation**

Inside the surviving megaspore, eight haploid nuclei are formed by mitosis (repeated mitotic divisions), which then organize into the embryo sac.

Q64 of 83

In the embryo sac, two nuclei migrate to the center and fuse to form the:

A Zygote

B Egg cell

✓ **Fusion nucleus**

D Generative cell

💡 **Explanation**

Two of the eight nuclei migrate to the center of the embryo sac and fuse together to form what is called the fusion nucleus (polar nuclei fusion).

Q65 of 83

The mature female gametophyte (embryo sac) contains how many cells in total?

A Four cells

B Five cells

C Six cells

✓ **Seven cells (one egg cell, one fusion nucleus, and five non-functional cells)**

💡 Explanation

The resulting embryo sac contains seven cells: one egg cell, one fusion nucleus (formed from two nuclei), and five other, non-functional cells.

Q66 of 83

The pollen sacs present in the anther act as the:

A Megasporangia

✓ **Microsporangia**

C Ovules

D Stigmas

💡 **Explanation**

The pollen sacs in the anther function as microsporangia, the structures in which microspores (and eventually pollen grains) are produced.

Q67 of 83

Each pollen sac contains many diploid cells known as:

A Megaspore mother cells

✓ **Microspore mother cells**

C Generative cells

D Tube cells

💡 **Explanation**

Each pollen sac contains many diploid microspore mother cells, which undergo meiosis to produce microspores.

Q68 of 83

A microspore mother cell undergoes meiosis to produce:

A Two diploid microspores

✓ **Four haploid microspores**

C Eight haploid nuclei

D One diploid pollen grain

💡 **Explanation**

Each microspore mother cell (2n) undergoes meiosis and produces four haploid (1n) microspores.

Q69 of 83

A microspore undergoes mitosis to become a two-celled structure known as a:

A Megaspore

✓ **Pollen grain**

C Ovule

D Zygote

💡 **Explanation**

A microspore undergoes mitosis, and the resulting two-celled structure is the pollen grain — the male gametophyte.

Q70 of 83

In a pollen grain, the tube cell will form the pollen tube, while the generative cell will form:

✓ **Two sperms**

B The egg cell

C The fusion nucleus

D The stigma

💡 **Explanation**

Of the two cells in a pollen grain, the tube cell forms the pollen tube, while the generative cell will divide to form two sperms.

Q71 of 83

The transfer of pollen grains from the anther to the stigma is called:

A Fertilization

✓ **Pollination**

C Grafting

D Germination

💡 **Explanation**

Pollination is defined as the transfer of pollen grains from an anther to a stigma, allowing sperms to eventually fertilize the egg.

Q72 of 83

The transfer of pollen from the anther to the stigma of the SAME flower or another flower on the SAME plant is called:

A Cross-pollination

✓ **Self-pollination**

C Double fertilization

D Grafting

💡 **Explanation**

Self-pollination is when pollen is transferred from the anther to the stigma of the same flower, or of another flower on the same plant.

Q73 of 83

The transfer of pollen from the anther of one plant to the stigma of a flower on a DIFFERENT plant of the same species is called:

A Self-pollination

✓ **Cross-pollination**

C Vegetative propagation

D Grafting

💡 **Explanation**

Cross-pollination occurs when pollen is transferred from the anther of one plant to the stigma of a flower on a different plant of the same species.

Q74 of 83

Why is pollination necessary for fertilization to occur in flowering plants?

✓ **It allows sperms from the pollen grain to reach the egg in the embryo sac**

B It directly produces the seed without further steps

C It replaces the need for an ovary

D It is unrelated to fertilization

💡 **Explanation**

Pollination transfers pollen grains (containing sperms) to the stigma so that, after the pollen tube grows through the style, sperms can reach and fertilize the egg.

Q75 of 83

When a pollen grain reaches the stigma, its tube cell forms a structure that grows through the style toward the ovary. This structure is the:

A Filament

✓ **Pollen tube**

C Fusion nucleus

D Sepal

💡 **Explanation**

When a pollen grain reaches the stigma, its tube cell forms a pollen tube, which grows through the style and towards the ovary.

Q76 of 83

The pollen tube enters the ovule through a small opening called the:

✓ **Micropyle**

B Stigma

C Filament

D Node

💡 **Explanation**

The pollen tube reaches the ovule and enters it through the micropyle, a small pore in the ovule's covering.

Q77 of 83

How many sperms does the generative cell of the pollen grain form, and where do they go?

A One sperm, which stays in the pollen tube

✓ **Two sperms, which enter the embryo sac to reach the egg**

C Four sperms, which form the endosperm alone

D Three sperms, which form the zygote directly

💡 **Explanation**

The generative cell of the pollen grain forms two sperms, which enter the embryo sac through the micropyle to reach the egg.

Q78 of 83

One sperm fuses with the egg to form a diploid zygote; the second sperm fuses with the fusion nucleus to produce a:

A Diploid (2n) zygote

B Haploid (1n) spore

✓ **Triploid (3n) nucleus**

D Tetraploid (4n) nucleus

💡 **Explanation**

The second sperm fuses with the fusion nucleus (formed from two polar nuclei) to produce a triploid (3n) nucleus, which develops into the endosperm.

Q79 of 83

The unique process in angiosperms in which two sperms fuse — one with the egg and one with the fusion nucleus — is called:

A Self-pollination

B Cross-pollination

✓ **Double fertilization**

D Vegetative propagation

💡 **Explanation**

This fusion of two sperms (one with the egg, the other with the fusion nucleus) is called double fertilization, a unique characteristic of angiosperms.

Q80 of 83

After fertilization, the zygote develops into the embryo, while the triploid nucleus develops into the:

✓ **Endosperm**

B Ovary wall

C Pollen grain

D Stigma

💡 **Explanation**

After fertilization, the zygote develops into the embryo, and the triploid (3n) nucleus develops into a nourishing tissue called the endosperm.

Q81 of 83

What does the endosperm provide for the developing embryo?

A Protection only

✓ **Nourishment**

C A pathway for pollen

D Pigmentation

💡 **Explanation**

The endosperm is tissue that develops from the fertilized triploid nucleus and provides nourishment for the developing embryo.

Q82 of 83

After the developments following fertilization, the ovule becomes the ___ and the ovary changes into the ___.

A Fruit; seed

✓ **Seed; fruit**

C Embryo; endosperm

D Endosperm; embryo

💡 **Explanation**

After fertilization and the development of the embryo and endosperm, the mature ovule is called a seed, and the ovary changes into the fruit.

Q83 of 83

The development of fruit WITHOUT fertilization of the egg in the ovule, resulting in seedless fruits like bananas, is called:

✓ **Parthenocarpy**

B Double fertilization

C Grafting

D Pollination

💡 **Explanation**

Parthenocarpy is the process in which fruits develop without fertilization of the egg in the ovule, resulting in seedless fruits such as bananas and some seedless grape varieties.

You've Completed Chapter 9

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