

MockTest 3

Fuuvix

Question 1

Complete the analogy: Threshing is to removing grains from plants as winnowing is to _____.

- ☐ A Planting seeds
- ☐ B Separating grains from chaff
- ☐ C Watering crops
- ☐ D Harvesting crops

Question 2

Which flower is most likely pollinated by the wind?

- ☐ A A flower with bright red petals and a sweet smell.
- ☐ B A flower with small, green petals and no smell.
- ☐ C A flower with large, flat petals and lots of nectar.
- ☐ D A flower with sticky pollen and a strong scent.

Question 3

What is the primary role of chlorophyll in photosynthesis?

- ☐ A It stores water for the plant.
- ☐ B It absorbs sunlight to produce energy.
- ☐ C It transports nutrients to the leaves.
- ☐ D It releases oxygen into the air.

Question 4

Complete the sentences below by choosing the best set of words.

Statement 1: _____ is the green pigment in plant leaves that captures sunlight for photosynthesis.
Statement 2: During photosynthesis, plants convert _____ and water into glucose and oxygen.
Statement 3: The _____ produced during photosynthesis is used by plants for energy and growth.

- ☐ A Chlorophyll, Carbon Dioxide, Glucose
- ☐ B Xylem, Oxygen, Starch
- ☐ C Chloroplast, Nitrogen, Sugar
- ☐ D Phloem, Sunlight, Protein

Question 5

A student sets up an experiment to test the importance of sunlight for plant growth. They place two identical potted plants in the same room. Plant A is placed near a sunny window, while Plant B is placed in a dark closet. Both plants receive the same amount of water. After two weeks, what is the MOST likely observation?

- ☐ A Plant A grows taller and has green leaves, while Plant B is shorter with yellow leaves.
- ☐ B Both plants grow equally tall and have green leaves.
- ☐ C Plant B grows taller than Plant A because it doesn't waste energy on photosynthesis.
- ☐ D Neither plant grows because they need fertilizer to survive.

Question 6

Which of the following statements accurately describes the role of stomata in plant respiration?

- ☐ A Stomata allow oxygen to enter and carbon dioxide to exit during photosynthesis only.
- ☐ B Stomata facilitate the exchange of oxygen and carbon dioxide during both respiration and photosynthesis.
- ☐ C Stomata are only involved in water absorption from the soil.
- ☐ D Stomata release oxygen during the day and absorb it at night.

Question 7

Fibrous roots are to grasses as taproots are to _____.

- ☐ A Oak trees
- ☐ B Ferns
- ☐ C Mosses
- ☐ D Algae

Question 8

Scenario: A gardener notices that after a strong windstorm, some plants in the garden have fallen over while others remain upright. The fallen plants have shallow roots, while the upright plants have deep, spreading roots.

What is the MOST likely reason the plants with deep, spreading roots stayed upright during the windstorm?

- ☐ A Deep roots absorb more water, making the plant heavier.
- ☐ B Deep roots anchor the plant more firmly in the soil.
- ☐ C Deep roots grow faster, helping the plant recover quickly.
- ☐ D Deep roots attract helpful insects that stabilize the plant.

Question 9

Which of the following plants is most likely to have a taproot system?

- ☐ A Grass
- ☐ B Dandelion
- ☐ C Fern
- ☐ D Moss

Question 10

The _____ is an example of a plant that stores nutrients in its roots, allowing it to survive harsh conditions.

- ☐ A carrot
- ☐ B oak tree
- ☐ C fern
- ☐ D grass

Question 11

In a desert environment, plants are most likely to have a _____ root system to efficiently absorb scarce water.

- ☐ A taproot
- ☐ B fibrous
- ☐ C deep and widespread
- ☐ D shallow and narrow

Question 12

Which of these is the 'odd one out' when thinking about plant parts used for vegetative reproduction?

- ☐ A Stem cutting (e.g., rose)
- ☐ B Tuber (e.g., potato)
- ☐ C Leaf bud (e.g., bryophyllum)
- ☐ D Seed (e.g., sunflower)

Question 13

The _____ is the tiny plant inside a seed that will grow into a new plant.

- ☐ A seed coat
- ☐ B root
- ☐ C embryo
- ☐ D leaf

Question 14

The _____ is the part of the seed that gives food to the baby plant when it starts to grow.

- ☐ A root
- ☐ B stem
- ☐ C cotyledon
- ☐ D flower

Question 15

A student plants two seeds in separate cups. Cup 1 has a wheat seed (monocot), and Cup 2 has a sunflower seed (dicot). Both cups get water and sunlight. After a few days, the seeds sprout. What is the MOST likely difference between the two sprouts?

- ☐ A The wheat sprout has one leaf, and the sunflower sprout has two leaves.
- ☐ B The wheat sprout has two leaves, and the sunflower sprout has one leaf.
- ☐ C Both sprouts have one leaf.
- ☐ D Both sprouts have two leaves.

Question 16

Which seed will most likely grow into a healthy plant if planted in dry, sandy soil?

- ☐ A A seed with a thick, waxy coat
- ☐ B A seed with large, flat leaves
- ☐ C A seed that needs lots of water
- ☐ D A seed that grows best in shade

Question 17

Scenario: A coconut seed falls into the ocean and floats on the water for many days.

What is the MOST likely reason the coconut seed can float on water?

- ☐ A It has a hard shell that keeps it dry.
- ☐ B It is very light like a feather.
- ☐ C It has air inside its shell that helps it float.
- ☐ D It sticks to other floating objects.

Question 18

Characteristic	P	Q
Obtains nutrients from insects?	Yes	No
Obtains nutrients from host plants?	No	Yes
Has specialized trapping structures?	Yes	No

Study the given table and select the option that correctly identifies P and Q.

- ☐ A P: Venus Flytrap, Q: Mistletoe
- ☐ B P: Dodder, Q: Pitcher Plant
- ☐ C P: Sundew, Q: Sunflower
- ☐ D P: Rafflesia, Q: Bladderwort

Question 19

Find the 'odd one out' in EACH group and choose the option that lists them correctly for Group 1 and Group 2.

Group 1: Pine, Spruce, Oak, Fir
Group 2: Maple, Birch, Palm, Cedar

- ☐ A Group 1: Oak, Group 2: Palm
- ☐ B Group 1: Pine, Group 2: Maple
- ☐ C Group 1: Spruce, Group 2: Birch
- ☐ D Group 1: Fir, Group 2: Cedar

Question 20

The table below shows the thickness of root caps in different plant species and their corresponding soil penetration depths:

Plant Species	Root Cap Thickness (mm)	Soil Penetration Depth (cm)
Oak Tree	0.8	50
Corn	0.3	30
Carrot	0.5	25
Grass	0.2	15

Based on the data, which statement is MOST LIKELY correct about the relationship between root cap thickness and soil penetration?

- ☐ A Thicker root caps allow plants to penetrate deeper into the soil
- ☐ B Thinner root caps are better at protecting the root tip
- ☐ C Soil penetration depth is unrelated to root cap thickness
- ☐ D All plants have the same root cap thickness regardless of soil type

Question 21

Which of the following is a common feature of desert plants to reduce water loss?

- ☐ A Thick, waxy leaves
- ☐ B Deep roots to reach groundwater
- ☐ C Small or no leaves
- ☐ D All of the above

Question 22

Why do many aquatic plants, such as hydrilla, have thin and flexible stems?

- ☐ A To store extra water for dry seasons
- ☐ B To allow them to bend with water currents without breaking
- ☐ C To help them absorb more sunlight underwater
- ☐ D To make them less visible to predators

Question 23

Which of the following best describes how most fungi obtain their nutrients?

- ☐ A By performing photosynthesis like plants.
- ☐ B By absorbing nutrients from decaying organic matter.
- ☐ C By hunting and consuming small animals.
- ☐ D By producing their own food using sunlight and water.

Question 24

The Venus flytrap catches insects using specialized leaves that snap shut when triggered. These leaves are modified to form _____.

- ☐ A stomata
- ☐ B traps
- ☐ C roots
- ☐ D flowers

Question 25

Which of the following foods comes from a plant's fruit?

- ☐ A Tomato
- ☐ B Onion
- ☐ C Potato
- ☐ D None of the above

Question 26

Complete the sentences below by choosing the best set of words.

Statement 1: _____ trees shed all their leaves during a specific season, usually autumn, to conserve water.
Statement 2: _____ trees retain their leaves throughout the year and are often adapted to harsh climates.
Statement 3: Most _____ trees produce cones and have needle-like or scale-like leaves.

- ☐ A Deciduous, Evergreen, Coniferous
- ☐ B Evergreen, Deciduous, Coniferous
- ☐ C Coniferous, Deciduous, Evergreen
- ☐ D Deciduous, Coniferous, Evergreen

Question 27

Complete the sentences below by choosing the best set of words.

Statement 1: Desert plants like cacti have thick, fleshy _____ to store water for long periods.
Statement 2: Many desert plants have _____ instead of broad leaves to reduce water loss through transpiration.
Statement 3: Some desert plants grow deep _____ to reach underground water sources.

- ☐ A stems, spines, roots
- ☐ B leaves, thorns, flowers
- ☐ C bark, needles, shoots
- ☐ D roots, scales, branches

Question 28

Decide if each statement about water-intensive crops in India is True (T) or False (F). Choose the option that shows the correct answers for all statements:

Statement 1: Rice is a water-intensive crop commonly grown in India.

Statement 2: Sugarcane requires less water than wheat to grow.

Statement 3: Cotton is not a water-intensive crop.

Statement 4: Water-intensive crops are usually grown in regions with high rainfall or irrigation facilities.

A 1-T, 2-F, 3-F, 4-T

B 1-T, 2-T, 3-T, 4-F

C 1-F, 2-F, 3-T, 4-T

D 1-F, 2-T, 3-F, 4-F

Question 29

Decide if each statement about common vegetables grown in India is True (T) or False (F). Choose the option that shows the correct answers for all statements:

Statement 1: Potatoes are primarily grown in the northern plains of India.

Statement 2: Okra (ladyfinger) is a tropical vegetable that thrives in hot climates.

Statement 3: Spinach is a root vegetable like carrots or radishes.

Statement 4: Eggplants (brinjal) are not commonly grown in India.

A 1-T, 2-T, 3-F, 4-F

B 1-F, 2-T, 3-T, 4-F

C 1-T, 2-F, 3-F, 4-T

D 1-F, 2-F, 3-T, 4-T

Question 30

Scenario: A farmer in India sows seeds too deeply in the soil during the planting season.

What is the MOST likely effect of sowing seeds too deep in the soil?

A Seeds will germinate faster due to warmth underground.

B Seeds may not receive enough oxygen to germinate properly.

C Seeds will grow into stronger plants with deeper roots.

D Seeds will attract more earthworms to help them grow.

Answers - MockTest 3

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Question 1

B Separating grains from chaff

Explanation:

Threshing is the process of removing grains from plants (like wheat or rice). Similarly, winnowing is the process of separating the grains from the lighter chaff (husks or debris) by tossing them in the air or using wind. The other options are unrelated to winnowing.

Question 2

B A flower with small, green petals and no smell.

Explanation:

Option b is correct. Wind-pollinated flowers are usually small, green, and lack bright colors or strong smells because they don't need to attract animals.

Option a is incorrect; bright colors and sweet smells attract animals like bees or birds.

Option c is incorrect; large, flat petals and nectar are adaptations for animal pollinators.

Option d is incorrect; sticky pollen and strong scents are for attracting insects, not wind dispersal.

Question 3

B It absorbs sunlight to produce energy.

Explanation:

Option b is correct. Chlorophyll's main function is to absorb sunlight, which is used to convert carbon dioxide and water into glucose (energy) during photosynthesis.

Option a is incorrect; water storage is handled by vacuoles, not chlorophyll.

Option c is incorrect; nutrient transport is the role of the plant's vascular system (xylem and phloem).

Option d is partially true (oxygen is a byproduct of photosynthesis), but chlorophyll itself does not release it—the process as a whole does.

Question 4

A Chlorophyll, Carbon Dioxide, Glucose

Explanation:

Option a is the correct answer because:

- Statement 1: 'Chlorophyll' is the green pigment in plant leaves that captures sunlight for photosynthesis.
- Statement 2: Plants use 'Carbon Dioxide' from the air and water to produce glucose and oxygen during photosynthesis.
- Statement 3: The 'Glucose' produced is used by plants as a source of energy and for growth.

Let's see why other options are incorrect:

- Option b is incorrect because 'Xylem' is a plant tissue that transports water, not a pigment; 'Oxygen' is a byproduct, not an input, of photosynthesis; 'Starch' is a storage form of glucose, not the direct product of photosynthesis.
- Option c is incorrect because while 'Chloroplast' is the organelle where photosynthesis occurs, it is not the pigment; 'Nitrogen' is not a primary input for photosynthesis; 'Sugar' is a general term, but 'Glucose' is the specific product.
- Option d is incorrect because 'Phloem' transports sugars, not captures sunlight; 'Sunlight' is an energy source, not a material input; 'Protein' is not a direct product of photosynthesis.

Question 5

A Plant A grows taller and has green leaves, while Plant B is shorter with yellow leaves.

Explanation:

Sunlight is essential for photosynthesis, which allows plants to produce food and grow. Plant A, exposed to sunlight, will grow healthily with green leaves. Plant B, deprived of sunlight, cannot perform photosynthesis effectively, leading to stunted growth and yellowing leaves (chlorosis). The other options are incorrect because sunlight is a critical factor for plant growth, and the lack of it cannot be compensated by other conditions like water alone.

Question 6

- B** Stomata facilitate the exchange of oxygen and carbon dioxide during both respiration and photosynthesis.

Explanation:

Stomata are microscopic pores on plant leaves that regulate gas exchange. During respiration, plants take in oxygen and release carbon dioxide, while during photosynthesis, they take in carbon dioxide and release oxygen. Stomata are involved in both processes, making the second option correct. The other options are incorrect because stomata are not exclusive to photosynthesis (first option), do not absorb water (third option), and do not selectively release or absorb oxygen based on time (fourth option).

Question 7

- A** Oak trees

Explanation:

Fibrous roots are shallow and spread widely, which is typical of grasses. Taproots, on the other hand, are deep and thick, which is characteristic of large plants like oak trees that need to anchor deeply and access water far below the surface.

Question 8

- B** Deep roots anchor the plant more firmly in the soil.

Explanation:

Deep, spreading roots provide a stronger anchor in the soil, preventing the plant from being uprooted by wind. The other options are incorrect because root depth does not directly affect water absorption speed, growth rate, or insect attraction in this context.

Question 9

- B** Dandelion

Explanation:

Option b (Dandelion) is correct because dandelions are known for their deep taproots, which help them access water and nutrients from deeper soil layers.

Option a (Grass) is incorrect because grasses typically have fibrous root systems.

Option c (Fern) is incorrect because ferns have rhizomes or fibrous roots, not taproots.

Option d (Moss) is incorrect because mosses lack true roots altogether; they have rhizoids instead.

Question 10

- A** carrot

Explanation:

The carrot is a well-known example of a plant with storage roots, specifically a taproot that stores carbohydrates. Oak trees, ferns, and grasses do not have specialized storage roots like carrots.

Question 11

- C** deep and widespread

Explanation:

Desert plants typically develop deep and widespread root systems to maximize water absorption from a large area and reach deeper soil layers where moisture may be retained longer. Taproots (single large root) and fibrous roots (dense shallow network) are less effective in such environments.

Question 12

- D** Seed (e.g., sunflower)

Explanation:

Stem cuttings, tubers, and leaf buds are all plant parts used in vegetative (asexual) reproduction. Seeds, however, are produced through sexual reproduction, making them the odd one out.

Question 13

- C** embryo

Explanation:

The 'embryo' is the baby plant inside the seed. It is the part that will grow into a new plant when the seed germinates.

Question 14

- C** cotyledon

Explanation:

The cotyledon is the part of the seed that stores and provides food for the baby plant (embryo) during germination. This is a key function of the cotyledon in seed development.

Question 15

- A** The wheat sprout has one leaf, and the sunflower sprout has two leaves.

Explanation:

Monocots (like wheat) typically sprout with one seed leaf (cotyledon), while dicots (like sunflowers) sprout with two seed leaves. This is a key difference between the two types of plants.

Question 16

- A** A seed with a thick, waxy coat

Explanation:

Option a is correct because a thick, waxy coat helps the seed retain moisture in dry soil.

Option b is incorrect; large leaves would lose too much water in dry conditions.

Option c is incorrect; seeds needing lots of water would struggle in dry soil.

Option d is incorrect; shade preference doesn't help with dry soil survival.

Question 17

- C** It has air inside its shell that helps it float.

Explanation:

Coconut seeds can float because their thick, fibrous husk traps air inside, making them buoyant. This adaptation helps them travel long distances in water to reach new places to grow. The other options are incorrect: the hard shell protects but doesn't directly cause floating, coconuts are heavy (not light), and they don't rely on sticking to other objects.

Question 18

- A** P: Venus Flytrap, Q: Mistletoe

Explanation:

Based on the table:

P: Obtains nutrients from insects (Yes), does not obtain nutrients from host plants (No), and has specialized trapping structures (Yes) - characteristics of a Venus Flytrap (catches insects, does not parasitize plants, and has snap traps).

Q: Obtains nutrients from insects (No), obtains nutrients from host plants (Yes), and lacks specialized trapping structures (No) - characteristics of Mistletoe (a parasitic plant that derives nutrients from host plants but does not trap insects).

Option 'a' correctly matches Venus Flytrap to P and Mistletoe to Q. The other options misidentify one or both plants based on the table's characteristics.

Question 19

- A** Group 1: Oak, Group 2: Palm

Explanation:

In Group 1, 'Oak' is the odd one out because Pine, Spruce, and Fir are all coniferous trees (evergreen with needles), while Oak is deciduous (sheds leaves seasonally).

In Group 2, 'Palm' is the odd one out because Maple, Birch, and Cedar are trees found in temperate climates, while Palm is typically found in tropical or subtropical regions, making it the outlier in terms of habitat.

Question 20

- A** Thicker root caps allow plants to penetrate deeper into the soil

Explanation:

The data shows a clear trend: as root cap thickness increases (from 0.2mm to 0.8mm), soil penetration depth also increases (from 15cm to 50cm). The oak tree has the thickest root cap and deepest penetration, while grass has the thinnest and shallowest. This supports that thicker root caps likely provide better protection for deeper soil penetration.

Question 21

D All of the above

Explanation:

Desert plants have several adaptations to reduce water loss. Thick, waxy leaves prevent evaporation, deep roots access underground water, and small or no leaves minimize surface area for water loss. Since all these features are correct, 'All of the above' is the right answer.

Question 22

B To allow them to bend with water currents without breaking

Explanation:

Option b is correct. Thin and flexible stems help aquatic plants move with water currents, preventing damage.

Option a is incorrect; aquatic plants do not need to store water as they are submerged.

Option c is incorrect; stem flexibility does not directly affect sunlight absorption (leaves are responsible).

Option d is incorrect; stem flexibility is unrelated to camouflage.

Question 23

B By absorbing nutrients from decaying organic matter.

Explanation:

The correct answer is 'By absorbing nutrients from decaying organic matter.' Fungi are decomposers and typically obtain nutrients by secreting enzymes to break down dead organic material, then absorbing the nutrients.

Option 1 is incorrect because fungi do not perform photosynthesis.

Option 3 is incorrect because fungi do not hunt; they are not predators.

Option 4 is incorrect because fungi cannot produce their own food like plants.

Question 24

B traps

Explanation:

The Venus flytrap's leaves are modified into 'traps' that close when an insect touches the trigger hairs. This adaptation helps the plant obtain nutrients from insects in nutrient-poor environments.

Question 25

A Tomato

Explanation:

Tomatoes are botanically classified as fruits, while onions are bulbs (modified leaves) and potatoes are tubers (modified stems). Thus, only option a is correct, and 'None of the above' is incorrect.

Question 26

A Deciduous, Evergreen, Coniferous

Explanation:

Option a is the correct answer because:

- Statement 1: 'Deciduous' trees are known for shedding their leaves seasonally, typically in autumn.
- Statement 2: 'Evergreen' trees retain their leaves year-round and are often found in harsh climates.
- Statement 3: 'Coniferous' trees are cone-bearing and usually have needle-like or scale-like leaves.

Let's see why other options are incorrect:

- Option b is incorrect because 'Evergreen' trees do not shed all their leaves seasonally, and 'Deciduous' trees do not retain leaves year-round.
- Option c is incorrect because 'Coniferous' trees are not the ones that shed leaves seasonally, and 'Deciduous' trees are not cone-bearing.
- Option d is incorrect because 'Coniferous' trees are not the ones that retain leaves year-round, and 'Evergreen' trees are not typically cone-bearing.

Question 27

A stems, spines, roots

Explanation:

Option a is the correct answer because:

- Statement 1: Cacti store water in their thick, fleshy 'stems' (not leaves or bark).
- Statement 2: Spines (modified leaves) replace broad leaves in desert plants to minimize transpiration.
- Statement 3: Deep 'roots' allow desert plants to access underground water.

Why other options are incorrect:

- Option b is incorrect because 'leaves' are not the primary water storage organ in cacti (stems are), and 'flowers' do not help reach water.
- Option c is incorrect because 'bark' does not store water, and 'needles' (while similar to spines) are not the most accurate term for desert plant adaptations.
- Option d is incorrect because 'roots' are correct for statement 3, but 'scales' and 'branches' are not key adaptations for water conservation.

Question 28

A 1-T, 2-F, 3-F, 4-T

Explanation:

Statement 1 is True: Rice is a staple crop in India and requires a lot of water.

Statement 2 is False: Sugarcane is highly water-intensive, often needing more water than wheat.

Statement 3 is False: Cotton is a water-intensive crop, especially during its growth phase.

Statement 4 is True: These crops thrive in areas with ample water supply, either from rain or irrigation.

Question 29

A 1-T, 2-T, 3-F, 4-F

Explanation:

Statement 1 is True: Potatoes are widely cultivated in the fertile northern plains of India.

Statement 2 is True: Okra is a tropical vegetable that grows well in India's hot climate.

Statement 3 is False: Spinach is a leafy vegetable, not a root vegetable.

Statement 4 is False: Eggplants (brinjal) are one of the most commonly grown vegetables in India.

Question 30

B Seeds may not receive enough oxygen to germinate properly.

Explanation:

Seeds require oxygen for germination, which is limited when sown too deep. The correct answer reflects the most direct consequence—lack of oxygen hindering germination. The other options are either incorrect (faster germination, stronger plants) or unrelated (earthworms).