



**PLANT
ADAPTATION
REVIEW**



Test Tomorrow

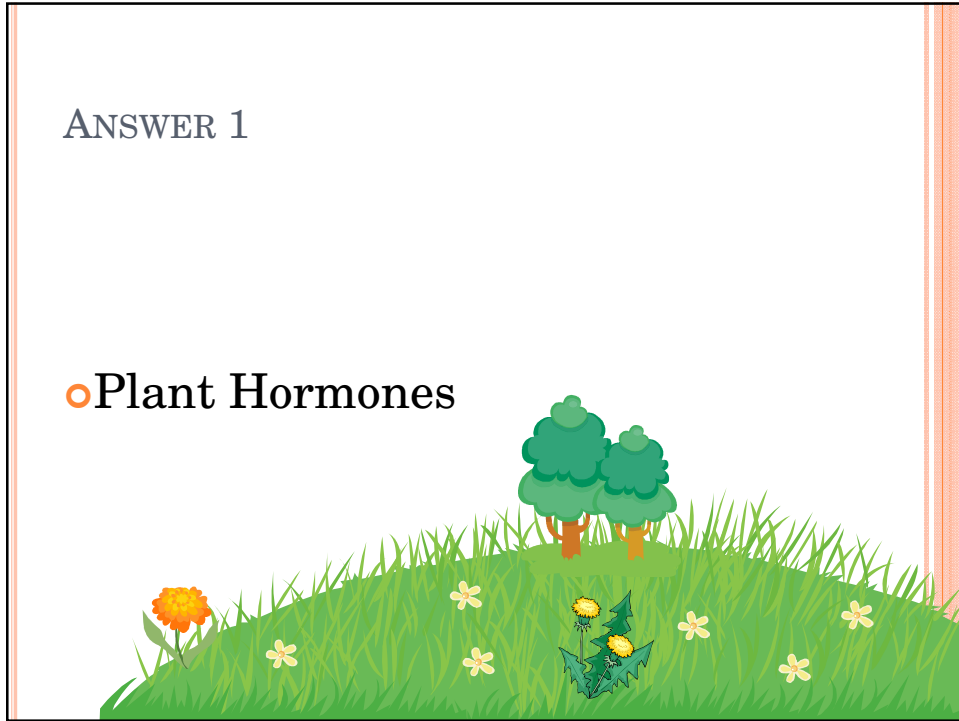
QUESTION 1

- _____ are chemical substances that control a plant's patterns of growth & development, & the plant's responses to environmental conditions



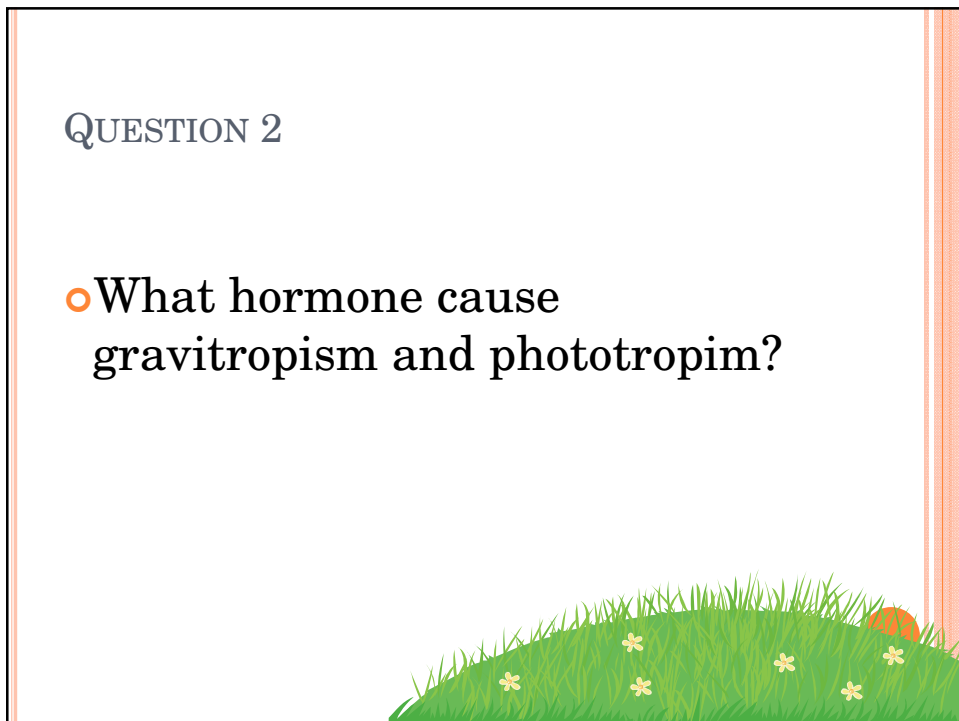
ANSWER 1

- Plant Hormones



QUESTION 2

- What hormone cause gravitropism and phototropim?

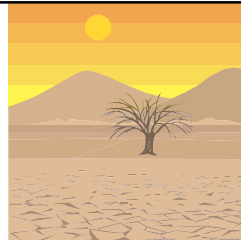


ANSWER 2

- Auxin



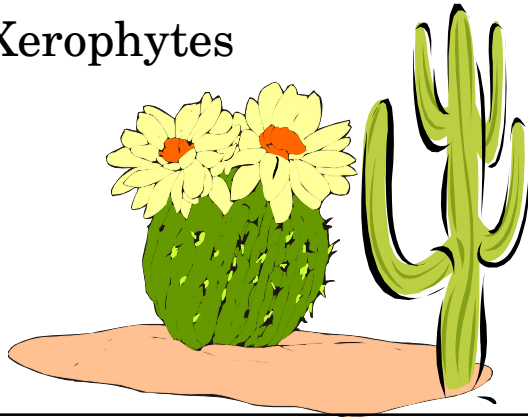
QUESTION 3



- Cactus plants are typically found in the desert biome. What are plants that are found in the deserts called?

ANSWER 3

○ Xerophytes



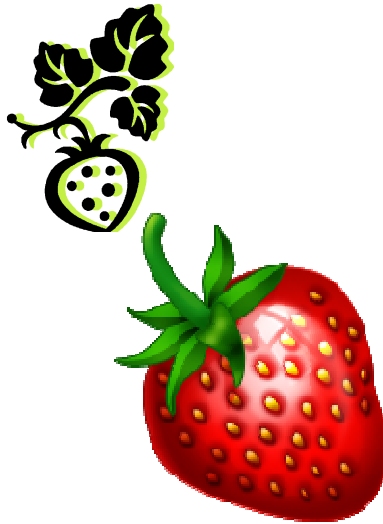
QUESTION 4

○ Fruit is stimulated to ripen by

_____.



ANSWER 4

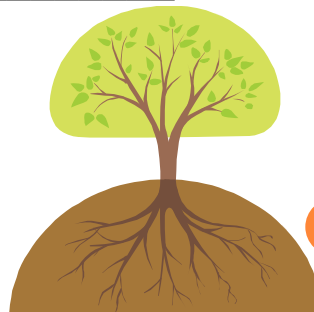


○ ethylene



QUESTION 5

○ The tendency of roots to grow down into soil and stems to grow up is called _____.



ANSWER 5

- Gravitropism



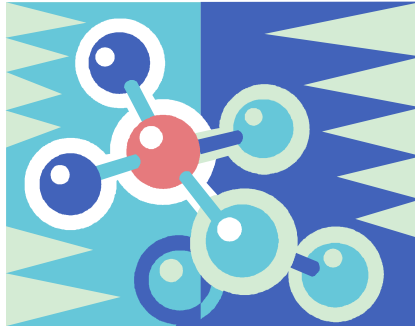
QUESTION 6

- This is an hormone and is also a gas.



ANSWER 6

- Ethylene



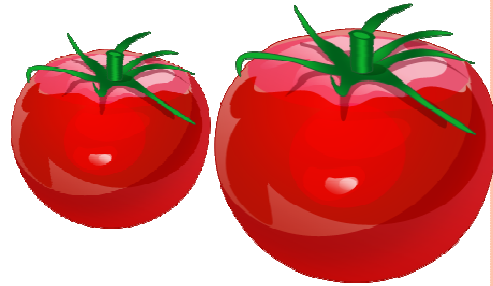
QUESTION 7

- Dramatic increase in the size of stems and fruits are the result of which hormone?



ANSWER 7

- Gibberellins



QUESTION 8

- The tendency of plants to grow toward light is called

_____.



ANSWER 8

○ Phototropism



QUESTION 10

○ What substance is produced in the apical meristem that stimulates cell elongation?



ANSWER 10

- Auxin



QUESTION 11

- The layer of cells at the petiole that seals off a leaf from the vascular system is the _____.



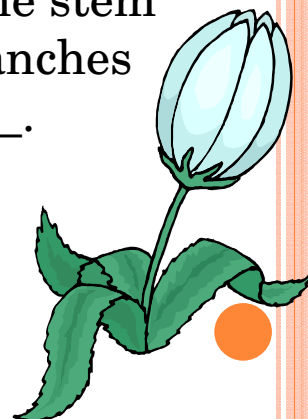
ANSWER 11

○ Abscission layer



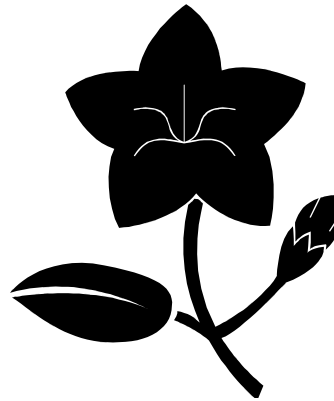
QUESTION 12

○ The area on the side of the stem that gives rise to side branches is called _____.



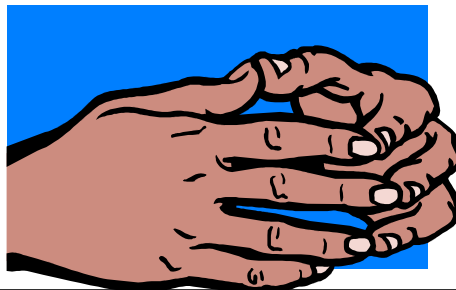
ANSWER 12

- Lateral buds



QUESTION 13

- What is an example of a plant that is affected by thigmotropism?



ANSWER 13

Carnivores plants, vines, some ferns



QUESTION 14



- Describe the plant's growth after the apical meristem is removed from a plant?



ANSWER 14

- The sides branches grow more rapidly, so the plant expands laterally (wider)



QUESTION 15

- How is cytokinins different from the hormone auxin?



ANSWER 15

- It stimulates lateral bud growth



QUESTION 16



- How does the presence of auxins affect the lateral stem growth?



ANSWER 16

○ Inhibits



QUESTIONS 17

○ What kind of plant is a
VENUS FLY TRAP?



ANSWER 17

- Nutritional Specialist



QUESTION 18



- Compounds that are toxic to plants, many contain high concentrations of auxins since auxins inhibit growth. What are they?

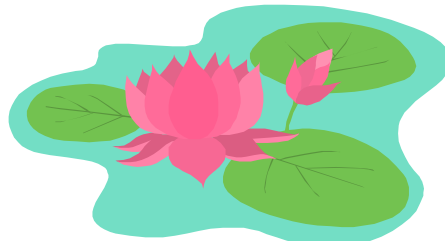
ANSWER 18

- Herbicides



QUESTION 19

- What are two things that hormones tell plants that its time for them to do?



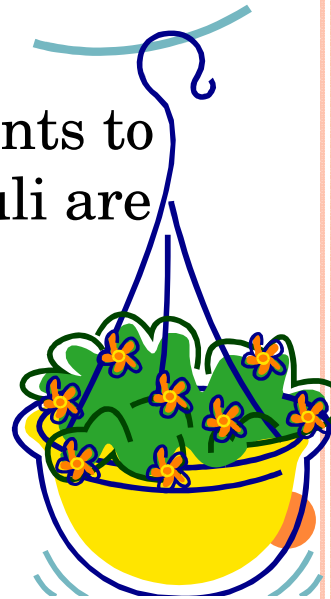
ANSWER 20

- When to **drop their leaves**.
- When to start **new growth**.
- When to cause **fruit to ripen**.
- When to cause **flowers to bloom**.
- When to cause **seeds to sprout**.



QUESTION 21

- The responses of plants to environmental stimuli are called _____.



ANSWER 21

- Tropisms



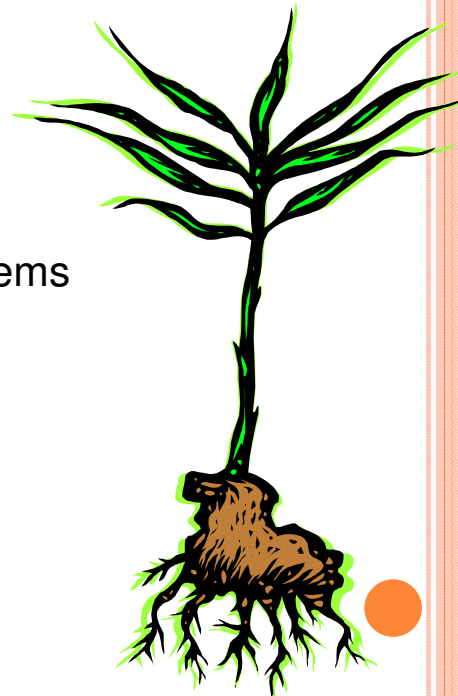
QUESTION 22

- Where on the plant are most plant hormones produced? They have rapidly producing tissues.



ANSWER 22

- In tips of roots and stems



QUESTION 23

- What is a pigment that regulates the changes in activity that prepare plants for winter or photoperiodism?



ANSWER 23



- Phytochrome

Bonus point:

What type of light do phytochrome absorb?

Red



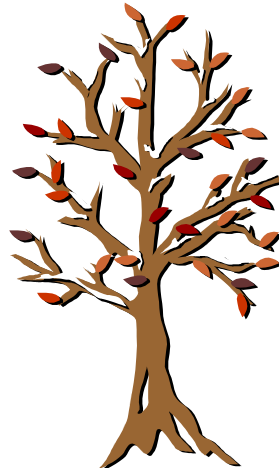
QUESTION 24

- The period when a deciduous plant starts to decrease its activity is called _____. It's similar to hibernation in animals.



ANSWER 24

- Dormancy



QUESTION 25

- The response of a plant to change in the length of day or night is called _____.



ANSWER 25

- Photoperiodism



QUESTION 26



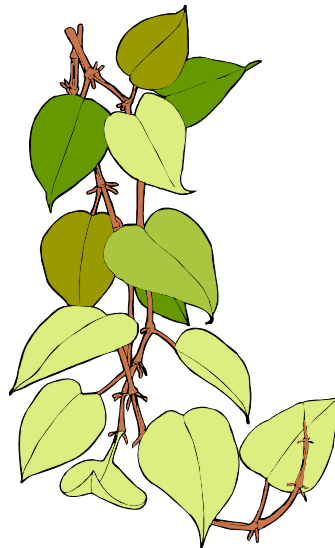
- True or False

- Epiphytes are plants that are found in the Tropical Rainforest and are parasite to other plants by taking their nutrients, water, and sunlight.



ANSWER 26

○ False



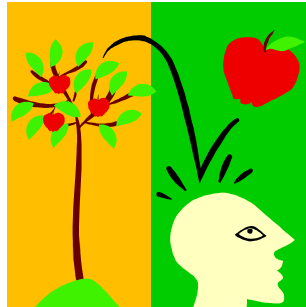
QUESTION 27

○ List three environmental factors to which plants respond.



ANSWER 28

- Touch, light, gravity, moisture



QUESTION 29



- Insect predators have provided the adaptive pressure over time for plants to develop _____
_____ to avoid being eaten.



ANSWER 29

- Chemical defenses



QUESTION 30

The closer a bud is to the stem's tip, the more it is inhibited, because auxins move out from the apical meristem. What occurs because of this?



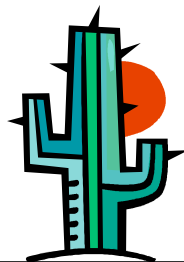
ANSWER 30

- Apical Dominance



QUESTION 31

- What is the portion of a plant that is affected by a hormone called?



ANWER 31

○Target cells

