

Question bank of Plant Physiology Theoretical subject

Exam Question styles

Q-Fill in the blanks with suitable words:

1- There are three types of transpiration:

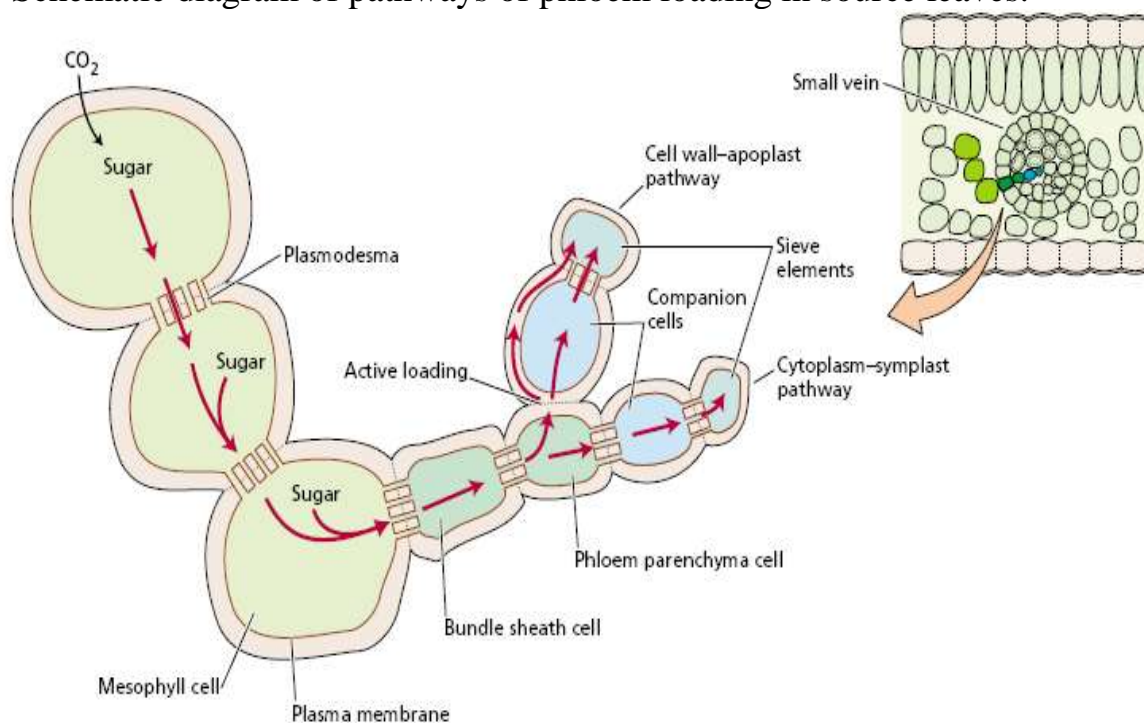
a- stomatal transpiration.

b- lenticular transpiration.

c- cuticular transpiration.

Q- Explain the following by schemes or diagrams:

***Schematic diagram of pathways of phloem loading in source leaves.**



Q-(Short compositional answer)

*** Explain kinetic theory.**

-Kinetic theory

The elementary particles (atoms, ions and molecules) are in constant motion at temperature above absolute zero. The average energy of a particle of homogeneous substance rises as temperature increases.

Velocities can be calculated for particles in gases (its more difficult in liquids and solids) by:

$$V_{ave} = (8RT/JIM)^{1/2}$$

Where:

Vave= average velocity in centimeters/ seconds (cm S^{-1})

R= molar gas constant (8.31×10^7)

T= absolute temperature in Kelvin

M= molecular weight in grams/moles

$\pi=3.14$

Q- Enumerate the following:

* The importance of the water for plants:

- 1-The water is the main part of the cytoplasm.
- 2-The water is the media for biochemical reactions in the cell.
- 3-The water is transferring minerals and materials in the plant.
- 4- The water maintains the turgid pressure of the cells.
- 5-Some gases like O_2 and CO_2 are dissolved in the water.

Q- Multiple choices:

* The process of water evaporation from the plants called-----.

(1)Photosynthesis, 2) transpiration, 3) translocation)

Q-Give the reason for the following phrases:

* Why water molecules are attracted to other substances?

- Water molecules are attracted to other substances because of its polar nature, water is attracted to many other substances (e.g. cell wall polysaccharide) this is called adhesion.

Q- Correct the underlined parts if they are false:

* The high Latent heat of water causes stability of the temperature. X

- The high specific heat

Compositional Questions: In this type of exam the questions usually starts with Explain how, What are the reasons for...?, Why...?, How....?

For example:

- What is the reason behind the following: -
- What are the advantages and disadvantages of ()
- Identify and explain two problems that might occur as a result of the use of (.....)
- List three ways of ()

Q. True or false type of exams:

In this type of exam a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of this particular sentence. Examples should be provided

For instance:

- Correct the underlined parts if they are false:
- Put (T) for true statement and (F) for false statement then correct the mistakes.
- Compare () with ()
- Draw distinctions between () and ()

Q. Multiple choices:

In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase. Examples should be provided.

For example:

Identify the choice that best completes the statement or answers the question.

Q. Another styles of Questions may serve students:

- Define following terms?
- Draw a scheme or picture of ()
- Describe two types of ()
- Describe three different practices that can be used to ()
- Match the words in column A with the related /suitable words in column B.