ODM EDUCATIONAL GROUP

Changing your Tomorrow

SUBJECT:BIOLOGY
CHAPTER:7
CHAPTER NAME: CONTROL AND COORDINATION.
PERIOD-5

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Coordination in plants

- Unlike animals, plants do not have a nervous system. Plants use chemical means for control and coordination. Many plant hormones are responsible for various kinds of movements in plants. Movements in plants can be divided into two main types, viz. tropic movement and nastic movement.

Tropic movement

- Photo tropism
- Geo tropism
- Chemo tropism
- Hydro tropism

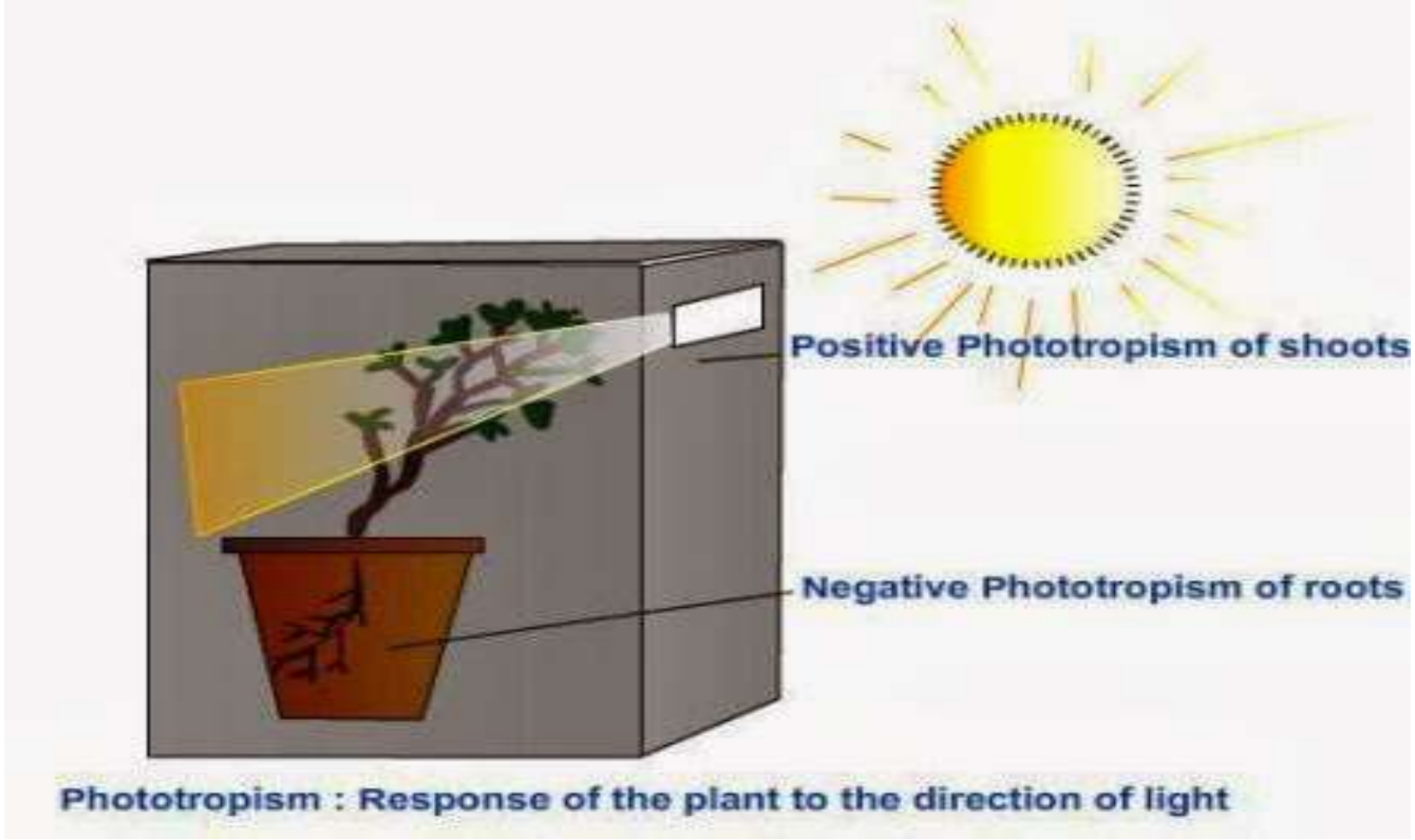
Nastic movement

- **Description**Nastic movement are directional responses to stimuli, and are usually associated with plants. The movement can be due to changes in turgor or changes in growth. Decrease in turgor pressure causes shrinkage while increase in turgor pressure brings about swelling.

Seismonastic movement (*Mimosa pudica*)

Photo tropism

- The growth in a plant part in response to light is called phototropic movement. Stems usually show positive phototropic movement, while roots usually show negative phototropic movement. If a plant is kept in a container in which no sunlight reaches and a hole in the container allows some sunlight; the stem finally grows in the direction of the sunlight. This happens because of a higher rate of cell division in the part of stem which is away from the sunlight. As a result, the stem bends towards the light. The heightened rate of cell division is attained by increased secretion of the plant hormone auxin in the part which is away from sunlight.



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HOME ASSIGNMENTS

1.what would happen if the roots of a plant become negatively geotropic?

2. Give an example of chemotropism? With the help of diagram

3. Roots can grow against the law of gravity. When does this happen?

THANKING YOU

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