



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION

Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Department of Mechanical Engineering

19BY701 - BIOLOGY FOR ENGINEERS

UNIT -2 | BIODIVERSITY

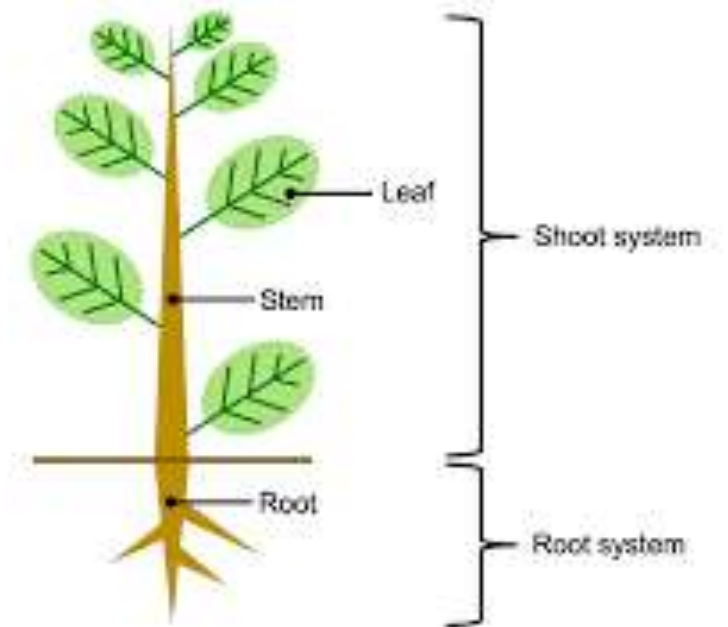
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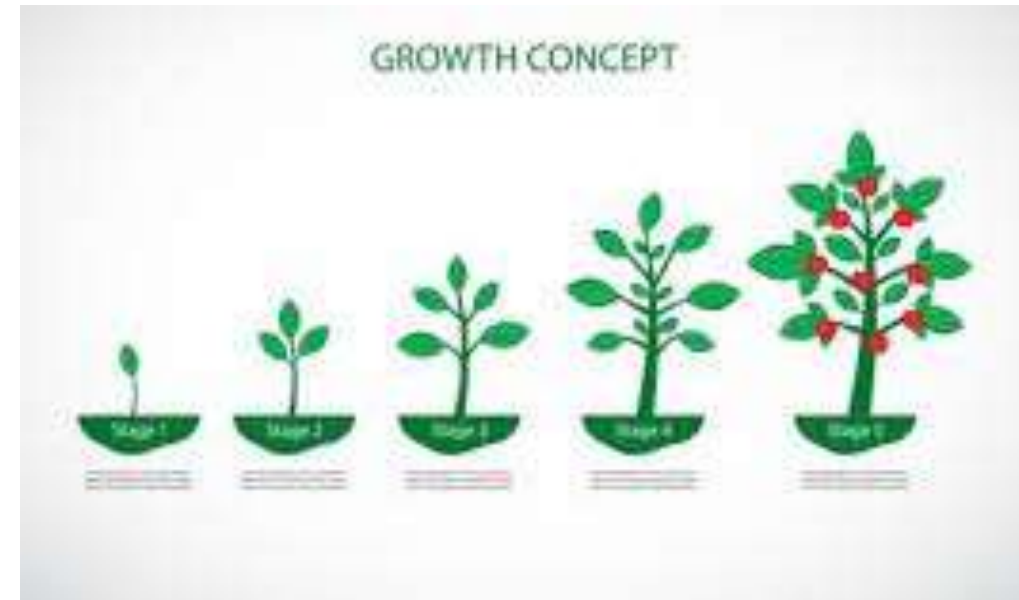
PLANTS SYSTEM

- Plant Organ Systems. Vascular plants have two distinct organ systems: **a shoot system, and a root system.**
- The shoot system consists stems, leaves, and the reproductive parts of the plant (flowers and fruits).
- The shoot system generally grows above ground, where it absorbs the light needed for photosynthesis.



BASICS CONCEPT OF PLANT GROWTH

- Plant growth could be defined as **the increasing of plant volume and/or mass with or without formation of new structures such as organs, tissues, cells or cell organelles.**
- Growth is usually associated with development (cell and tissue specialization) and reproduction (production of new individuals).



BASICS CONCEPT OF PLANT GROWTH

- Nutritional scientists discover the health effects of food and its nutrients by first making an observation.
- There are five key factors that make up a healthful diet

1. An adequate diet

2. A balanced diet

3. Calorie control

4. Moderation

5. Variety.



BASICS CONCEPT OF PLANT GROWTH

1. An adequate diet

Drinking enough water is crucial for overall health. Staying hydrated supports digestion, nutrient absorption, and many other bodily functions.

2. A balanced diet

A balanced diet provides the right proportions of macronutrients—carbohydrates, proteins, and fats. It also involves moderating portion sizes to avoid excessive calorie intake and maintaining energy balance.



BASICS CONCEPT OF PLANT GROWTH

3. Calorie control

Choosing foods that are rich in essential nutrients (vitamins, minerals, fiber) relative to their calorie content. For instance, opting for fruits, vegetables, and whole grains over processed foods.

4. Moderation

Moderation is about not overindulging in any one type of food, especially those high in added sugars, unhealthy fats, and sodium. It also means not depriving yourself of foods you enjoy but consuming them in reasonable amounts.



BASICS CONCEPT OF PLANT GROWTH

5.Variety.

Eating a wide range of foods from all the food groups helps ensure you get a broad spectrum of nutrients. This includes fruits, vegetables, whole grains, lean proteins, and healthy fats.





ASSESSMENT

Match the Following

1. An adequate diet
 2. A balanced diet
 3. Calorie control
 4. Moderation
 5. Variety.
- a. Fruits, vegetables, whole grains, lean proteins
 - b. High in added sugars, unhealthy fats, and sodium
 - c. Choosing foods that are rich in essential nutrients
 - d. To avoid excessive calorie intake and maintaining energy balance.
 - e. Staying hydrated supports digestion, nutrient absorption