



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION



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

VII Semester

19BY701 – Biology for Engineers

UNIT 2

16 MARKS

1. How do the intricate signaling pathways involved in plant growth regulation, including phytohormones and environmental cues, differ among various plant species, and how do these differences affect their adaptability to changing ecosystems? Additionally, how can this knowledge be applied to develop strategies for sustainable agriculture and ecosystem management?
2. How the photosynthesis and nitrogen fixation processes work in plants, and what is their importance in the broader context of ecosystem functioning?
3. Analyze the case of Liam, a 4-year-old with Phenylketonuria (PKU). Discuss how the dysfunction in the digestive and excretory systems contributes to the complexity of managing this metabolic disorder. Evaluate the effectiveness of current diagnostic and therapeutic approaches, and propose advanced strategies that could improve the management of PKU by addressing the interconnected impacts on these physiological systems..
4. Describe the digestive system and its functions, and include a clear diagram to illustrate how different parts of the system contribute to digestion.
5. How can you use your knowledge of the circulatory system's functionality and its main components to explain the physiological impact of a specific health condition, such as hypertension or anemia?
6. How do environmental factors like light intensity, temperature fluctuations, and soil composition interact to affect the growth patterns and strategies of different plant species?
7. Analyze how these interactions influence plant development and adaptability, and discuss how this understanding can be used to optimize agricultural practices and promote sustainable crop production