

UNIT

20

ORGAN SYSTEMS IN ANIMALS

Learning Objectives



After completing this lesson, student will be able to:

- define the terms digestion, excretion and reproduction.
- understand the various parts of the alimentary canal and the process of digestion.
- understand the role of enzymes in the process of digestion.
- know the organs involved in the process of excretion.
- understand the role of skin in excretion.
- understand the parts and functions of excretory system.
- learn the functions of male and female human reproductive system.

Introduction

Living organisms are evolved from the simplest form to complex level of organization. Cells are the basic fundamental units of an organism. These are grouped to form tissues, the tissues into organs and the organs form the organ systems forming an entire organism. The different organs and organ systems of an organism function by depending on one another with harmonious coordination. When we ride a bicycle, our muscular system and skeletal system work together to move our arms for steering and legs for pedalling. Our nervous system directs our arms and legs to work. Simultaneously, respiratory, digestive and circulatory systems work to provide energy to the muscles. All the systems work together in coordination to maintain

the body in a homeostatic condition of an organism.

Organ and organ systems have appeared first in the Phylum platyhelminthes and continues till mammals. Similar groups of cells form tissues like muscle tissue, nervous tissue, etc. Tissues are organised to form organs like heart, brain, etc. Two or more organs together form organ systems and perform common functions like digestion, circulation, nerve impulse transmission in co-ordination via digestive system, circulatory system, nervous system respectively. Division of labour is found among the various organ systems.

In this chapter we shall learn about the structure and functions of various organ systems like digestive system, excretory system and reproductive system in human beings.