

# 11. Study of Animal Type

## Cockroach (*Periplaneta americana*)

- Body is covered by chitinous exoskeleton.
- Body is divided into head, thorax (contains three segments), and abdomen (contains 10 segments).
- Cockroach has biting and chewing type of mouth parts. It consists of
  - labrum, which forms upper lip
  - a pair of mandibles
  - a pair of maxillae
  - labium, which forms lower lip
- The digestive system of cockroach includes hepatic caeca, which is located at the junction of foregut and midgut, that secretes digestive juices.
- Malpighian tubules are located at the junction of midgut and hindgut. They act as excretory organs.
- Respiration occurs by tracheae, which open towards exterior through spiracles.
- Circulatory system is open.
- Cockroach is uricotelic. They excrete nitrogenous waste in the form of uric acid.
- Cockroach has mosaic type of vision with less resolution and more sensitivity.
- Cockroaches are dioecious. A pair of testes lies in 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> segments while a pair of large ovaries is extended from 2<sup>nd</sup> – 6<sup>th</sup> abdominal segments.