COCKROACH

- class Insecta of Phylum Arthropoda
- brown or black bodied
- Bright yellow, red and green coloured cockroaches in tropical regions
- size range-> (0.6-7.6 cm)
- nocturnal omnivores

Morphology

- Periplaneta americana->34-53 mm long with wings
- Body ->segmented
- divisible into three distinct regions -> head, thorax and abdomen
- exoskeleton has hardened plates called sclerites
- pair of compound eyes
- A pair of thread like antennae arise from membranous sockets lying in front of eyes
- The abdomen in both males and females consists of 10 segments
- Males bear a pair of short, threadlike anal styles which are absent in females.
- In both sexes -> the 10th segment bears a pair of jointed filamentous structures called **anal cerci.**

Anatomy

- alimentary canal->divided into three regions: foregut, midgut and hindgut
- mouth opens into a short tubular pharynx ->leading to oesophagus->sac crop used for storing of food -> gizzard or proventriculus.
- Gizzard grinds the food particles
- open type blood vascular system
- Excretion is performed by Malpighian tubules
- The nymph moult about 13 times to reach the adult form.
- The nitrogenous waste substances are excreted in the form of uric acid. Hence, called **uricotelic insects.**