

ICSE CLASS 7 BIOLOGY
EXCRETION IN ANIMALS AND PLANTS

WHAT IS EXCRETION?

Removal of nitrogenous wastes from the body in the form of urea and uric acid. Water, extra salts and vitamins and urine pigments are also excreted along with these

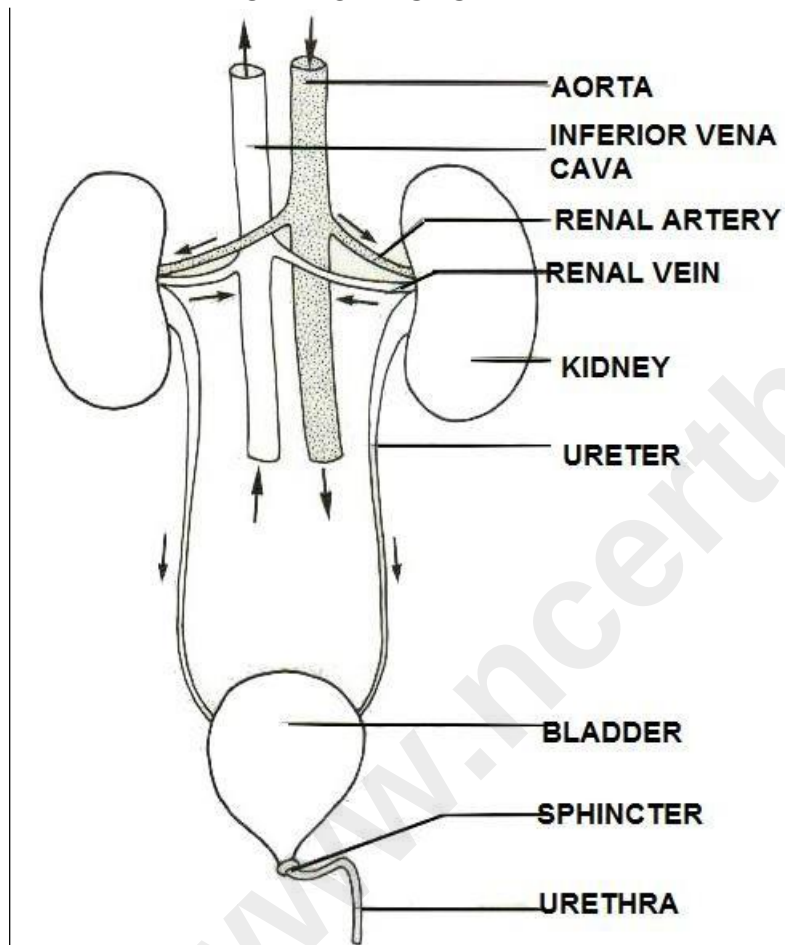
Kidneys also play an important role in regulating water content of the body. This is called osmoregulation

A small amount of water and salts are sent out of the body along with sweat

Lungs remove carbon dioxide produced during respiration

Liver eliminates drugs, extra vitamins, bile pigments through the bile and these are removed along with the faeces

THE RENAL EXCRETORY SYSTEM



Blood containing wastes collected from all parts of body → renal artery → filtration in the kidney → filtered blood goes through renal vein → filtrate consisting of wastes, glucose, amino acids and water move through nephron and urine is formed → urine passes through ureter → collects in urinary bladder → when bladder is full, brain tells the sphincter to relax → urine comes out through the urethra

FILTRATION, URINE FORMATION AND SECRETION OCCURS IN THE NEPHRON.

The kidney is made of thousands of such nephrons

EXCRETION IN PLANTS

Plants do not have special organs for excretion

- Oxygen produced during photosynthesis is sent out through stomata
- Excess salts may be deposited as crystals e.g. in tomatoes and spinach
- Wastes may be deposited in the bark of trees (e.g. quinine) or in leaves (e.g. Caffeine)
- Tannins, gums and resins are also waste products that are deposited in leaves and barks