

33. (a) Draw a diagram of excretory system in human beings and label on it:  
Aorta, vena cava, urinary bladder, urethra  
(b) List two vital functions of the kidney.  
[2009] ...[5M]
34. Explain the process of digestion of food in mouth, stomach and small intestine in human body.  
[2010] ...[5M]
35. (a) List the three events that occur during the process of photosynthesis. Explain the role of stomata in this process.  
(b) Describe an experiment to show that "sunlight is essential for photosynthesis."  
[2010] ...[5M]
36. (a) Mention any two components of blood.  
(b) Trace the movement of oxygenated blood in the body.  
(c) Write the function of valves present in between atria and ventricles.  
(d) Write one structural difference between the composition of artery and veins.  
[2018]...[5M]

37. (a) Define excretion.  
(b) Name the basic filtration unit present in the kidney.  
(c) Draw excretory system in human beings and label the following organs of excretory system which perform following functions:  
(i) Form urine  
(ii) Is a long tube which collects urine from kidney  
(iii) Store urine until it is passed out.  
[2018] ...[5M]
38. (a) Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain.  
(b) Draw a diagram of human respiratory system and label – pharynx, trachea, lungs, diaphragm and alveolar sac on it.  
[2020]...[5M]

**OR**

- (a) Name the organs that form the excretory system in human beings.  
(b) Describe in brief how urine is produced in human body.  
[2020]...[5M]

## 2 : Control and Coordination

1. Name two tissues that provide control and coordination in multicellular animals. [2009]...[1M]
2. How is the spinal cord protected in the human body? [2010] ...[1M]
3. In plants the role of cytokinin is : [2023] ...[1M]  
(a) Promote cell division  
(b) Wilting of leaves  
(c) Promote the opening of stomatal pore  
(d) Help in the growth of stem
4. What are 'nastic' and 'curvature' movements? Give one example of each. [2009] ...[2M]
5. What are hormones? Name the hormone secreted by thyroid gland and state its function.  
[2010] ...[2M]
6. (a) Name one gustatory receptor and one olfactory receptor present in human beings.  
(b) Write a and b in the given flow chart of neuron through which information travels as an electrical impulse.

Dendrite → a → b → End point of Neuron

[2018] ...[2M]

7. (A) Name the part of brain which is responsible for the following actions: [2023] ...[2M]  
(i) Maintaining posture and balance  
(ii) Beating of heart  
(iii) Thinking  
(iv) Blood pressure

**OR**

- (B) Where are auxins synthesized in a plant? Which organ of the plant shows:  
(i) Positive phototropism  
(ii) Negative geotropism  
(iii) Positive hydrotropism
8. Name the hormones secreted by the following endocrine glands and specify one function of each:  
(a) Thyroid  
(b) Pituitary  
(c) Pancreas  
[2018] ...[3M]