

## BRAIN INTERNATIONAL SCHOOL

**BIOLOGY Assignment**

**Class XI**

**Oct 18**

### **CH: Excretory Products and their Elimination**

1. What difference is observed in the ascending and the descending limbs of Henle's loop in the permeability to water?
2. If the release of ADH is inhibited, how will this affect the volume of urine produced?
3. Mention any two metabolic disorders which can be diagnosed by analysis of urine.
4. Describe the functional anatomy of human nephron?
5. What are osmoconformers and osmo regulators?
6. Explain renin angiotensin mechanism.
7. State the position and function of JGA.
8. Explain counter current mechanism of urine concentration in humans.
9. What is Hemodialysis ?
10. What is the role of immunosuppressor drugs in kidney transplantation patients.

### **CH: Transport in Plants**

1. What are hydathodes?
2. What are the two kinds of interactions of water molecules that allow water to travel upwards in plants?
3. What is the role of root pressure in ascent of sap?
4. Differentiate between stomata and hydathodes.
5. Why guttation usually occurs during humid periods at night or early in the morning.
6. What is osmosis? What is the significance of this phenomenon? Can you give one example of practical application of osmosis in your home.
7. What is Mass flow hypothesis for transport of substances .
- 8 .Why transpiration is considered as necessary evil?

### **CH: Locomotion and Movement**

1. Explain the sliding filament theory of muscle contraction.
2. What is the biological significance of myoglobin?
3. Write the difference between actin and myosin?
4. Give scientific reasons of the following statements:
  - a. Atlas vertebra is also called yes bone.

- b. Female pelvis is larger and broader than male pelvis.
  - c. Osteoarthritis is more common in old people.
5. Draw a diagram of a sarcomere showing different regions.
  6. Categorise the different vertebrae in mammalian vertebral column.
  7. Differentiate between red and white muscle fibre.
  8. Humans have three kinds of ribs. Name these with examples.
  9. Which compounds provide energy for muscle contraction?
  10. Compare pectoral and pelvic girdle.
  11. Describe various types of joints.

### **CH: Mineral Nutrition**

1. Why do plants of the legume family usually contain more protein than other plants?
2. What is leg-haemoglobin?
3. Differentiate between macronutrients and micronutrients.
4. Write explanatory notes on biological nitrogen fixation.
5. Describe the process of development of root nodules in a leguminous plant.
6. Give scientific reason to the following:
  - a. Rhizobium can fix nitrogen only in presence of leg haemoglobin.
  - b. Iron is not a constituent of chlorophyll but its deficiency causes chlorosis.
7. Explain nitrogen cycle.
8. Explain the fate of Ammonia formed in plants by rhizobium bacteria
9. What do you mean by mineral toxicity?
10. What is the criteria for essentiality of mineral nutrient?