Brain International School
Vikas Puri, New Delhi

ASSIGNMENT NO. 4

SUBJECT: BIOLOGY **CLASS-XI** **Nov '2026**

Chapter 16 – Excretory Products and their Elimination

Short Answer Questions
Section A – Two-mark questions

1. In which part of nephron filtration takes place?

2. What difference is observed in the ascending and descending limb of Henle's loop concerning the permeability of water?

3. What is the PH of urine?

4. Name the three kinds of nitrogen excretion.

5. What are podocytes?

6. Besides water, name any two constituents of human sweat.

7. What happens in glomerulonephritis?

Short Answer Type Questions

1. Differentiate between Rennin and Renin?

2. What are the two intrinsic mechanisms that provide autoregulation of glomerular filtrate? Explain any one of these

3. How is the permeability of the distal convoluted tubule and the collecting tubule controlled for regulating the water content inside the body?

4. Kidneys do not play a major role in excretion in ammonotelic animals. Justify

5. Define glomerular filtration rate. What is its value in a healthy human?

Long Answer Type Questions

1. Person suffering from very low blood pressure passes no urine why? What suggestion would you offer for the removal of waste products from the blood in such a situation?

2. Explain briefly how micturition is a reflex process but is also under some voluntary control.

3. Describe the urea cycle.

4. Suppose the kidneys of a person are damaged, can you predict what is going to happen to him?

5. How does the liver serve both as a digestive as well as and excretory organ?

6. Briefly describe the structure and function of the renal corpuscle.

7. Describe the mechanism of urine formation.

Chapter 17 – Locomotion and Movement

Multiple Question Answers

1. Who shows amoeboid movement?

a) Amoeba b) leucocytes c) macrophage d) all a,b,c

2. Which muscle does not fatigue and possesses abundant blood supply during life span?

a) Skeletal muscle b) smooth muscle c) cardiac muscle d) both b and c

3. Which muscle possesses multinucleus condition(Syncytium)?

a) Skeletal muscle b) smooth muscle c) cardiac muscle d) none of the above

4. In which muscle, amount of myoglobin is high?

a) Red muscle b) white muscle c) Non-striated muscle d) both a and b

5. How many bones is the skull made up of?

a) 23 b) 22 c) 21 d) 20

Short Answer Type Questions

1. What makes the synovial joints freely movable? List any four types of synovial joints.

2. What is osteoporosis? Name two factors which are responsible for osteoporosis.

3. What are floating ribs? How many of them are there?

Long Answer Type Questions

1. Differentiate between Endoskeleton and Exoskeleton.

2. List any three disorders of the muscular system.

3. Explain sliding filament theory of muscle contraction.

4. Describe the various kinds of joint in human body. According to mobility giving one example of each.

Case Based Questions:

Skeletal system consists of a framework of bones and a few cartilages. This system has a significant role in movement shown by the body. Bone and cartilage are specialised connective tissues. The former has a

very hard matrix due to calcium salts in it and the latter has slightly pliable matrix due to chondroitin salts. In human beings, this system is made up of 206 bones and a few cartilages. It is grouped into two principal divisions – the axial and the appendicular skeleton. Axial skeleton comprises 80 bones distributed along the main axis of the body. The skull, vertebral column, sternum and ribs constitute axial skeleton. The skull is composed of two sets of bones – cranial and facial, that totals to 22 bones. Cranial bones are 8 in number. They form the hard protective outer covering, cranium for the brain. The facial region is made up of 14 skeletal elements which form the front part of the skull.

1. Which of the following is the connective tissue has pliable matrix?
   a) Bone b) Blood c) Cartilages d) All of the above
2. Human skull is composed of
   a) Cranial bones b) Facial bones c) Pliable matrix d) both a and b
3. The vertebral formula of human beings is
   a) C7, T12,L5,S1,C1 b) C8, T12,L5,S1,C1 c) C7, T11,L5,S1,C1 d) C7, T12,L4,S1,C1
4. The total number of bones in axial skeleton is
   a) 90 b) 80 c) 85 d) 88
5. Ribs are attached to the
   a) scapula b) sternum c) clavicle d) ileum