



ASSIGNMENT NO. 4

SUBJECT: BIOLOGY

CLASS-XI

OCT, 2025

Chapter 15 Body fluid and circulation

Very Short Answer Type Question

1. Name the blood component which is viscous and straw coloured fluid.
2. Complete the missing word in the statement given below:
 - a. Plasma without _____ factors is called serum.
 - b. _____ and monocytes are phagocytic cells.
 - c. Eosinophils are associated with _____ reactions.
 - d. _____ inos play a significant role in clotting.
 - e. One can determine the heart beat rate by counting the number of _____ in an ECG.
3. Given below is the diagrammatic representation of a standard ECG. Label its different peaks.



4. Name the vascular connection that exists between the digestive tract and liver.
5. Given below are the abnormal conditions related to blood circulation.
Name the disorders.
 - a. Acute chest pain due to failure of O₂ supply to heart muscles.
 - b. Increased systolic pressure.
6. Which coronary artery disease is caused due to narrowing of the lumen of arteries?
7. Define the following terms and give their location?
 - a. Purkinje fibre
 - b. Bundle of His
8. State the functions of the following in blood.
 - a. Fibrinogen
 - b. Globulin
 - c. Neutrophils
 - d. Lymphocytes.
9. What physiological circumstances lead to erythroblastosis fetalis?
10. Explain the consequences of a situation in which blood does not coagulate.

11. What is the significance of time gap in the passage of action potential from sino-atrial node to the ventricle?
12. How will you interpret an electrocardiogram (ECG) in which time taken in QRS complex is higher.

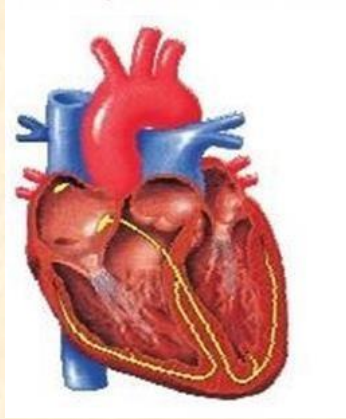
Short Answer Type Questions

1. The walls of ventricles are much thicker than atria. Explain?
2. Differentiate between
 - a. Blood and Lymph
 - b. Basophils and Eosinophils
 - c. Tricuspid and bicuspid valve
3. Briefly describe the following:
 - a. Anaemia
 - b. Angina Pectoris
 - c. Hypertension
 - d. Atherosclerosis
 - e. Heart failure
 - f. Erythroblastosis fetalis
4. Write the feature that distinguish between the two.
 - a. Plasma and serum
 - b. Open and closed circulatory system
 - c. Sino-atrial node and Atrio-ventricular node
5. Thrombocytes are essential for coagulation of blood. Comment?
6. Answer the following
 - a. Name the major site where RBCs are formed.
 - b. Which part of heart is responsible for initiating and maintaining its rhythmic activity?
 - c. What is specific in the heart of crocodiles among reptilians?

Long Answer Type Questions

1. Explain Rh-incompatibility in humans.
2. Describe the events in cardiac cycle. Explain "double circulation".
3. Explain different types of blood groups and donor compatibility by making a table.
4. Write short note on the following
 - a. Hypertension
 - b. Coronary artery Disease

5. In the diagrammatic presentation of heart given below, mark and label, SAN AVN, AV bundles, bundle of His and Purkinje fibers.



Chapter 16 – Excretory Products and their Elimination

Very Short Answer Type Question

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.