

Body Fluids and Circulation — Assignment 1

Class 11 Biology · Topic-wise question bank covering every concept of the chapter · Narayan Gurukul Academy

Instructions: (1) Attempt all questions. This worksheet walks through every concept of the chapter, topic by topic.
(2) The interactive MCQ version of these questions (with instant answer reveal) is available on the notes page.
(3) Universal values: $g = 10 \text{ m/s}^2$ unless stated. Give answers with correct SI units.

Blood — Composition and Functions

MCQ Questions (choose the correct option)

1. Plasma without clotting factors is called
 - (A) serum
 - (B) lymph
 - (C) tissue fluid
 - (D) haemolymph
2. The most abundant plasma protein is
 - (A) albumin
 - (B) globulin
 - (C) fibrinogen
 - (D) haemoglobin
3. The number of RBCs per cubic mm in a healthy adult is about
 - (A) 5 million
 - (B) 5000
 - (C) 50000
 - (D) 500 million
4. Blood is a
 - (A) fluid connective tissue
 - (B) epithelial tissue
 - (C) muscular tissue
 - (D) nervous tissue

1 Mark Questions

1. What is serum?
2. Name the most abundant plasma protein.
3. What type of tissue is blood?

2 Mark Questions

1. State two functions of blood.
2. Name the three types of blood cells and give one function of each.

3 Mark Questions

1. Describe the composition of blood.
2. Explain the functions of plasma proteins.

Lymph

MCQ Questions (choose the correct option)

1. Lymph is also called
 - (A) tissue fluid
 - (B) serum
 - (C) plasma
 - (D) haemolymph
2. Lymph is similar to plasma but has
 - (A) less protein
 - (B) more protein
 - (C) no water
 - (D) more RBCs
3. Lymph helps in the transport of
 - (A) fats and fat-soluble vitamins
 - (B) oxygen
 - (C) glucose only
 - (D) urea only
4. Lymph flows
 - (A) from tissues into lymph vessels
 - (B) from heart to tissues
 - (C) only in arteries
 - (D) only in veins

1 Mark Questions

1. What is lymph?
2. What is the main difference between lymph and plasma?
3. Name one substance transported by lymph.

2 Mark Questions

1. State two functions of lymph.
2. How does lymph differ from blood?

3 Mark Questions

1. Describe the composition and functions of lymph.
2. Explain the role of lymph in the body.

Blood Groups — ABO and Rh Systems

MCQ Questions (choose the correct option)

1. The ABO blood group system was discovered by
 - (A) Landsteiner
 - (B) Darwin
 - (C) Mendel
 - (D) Watson
2. A person with blood group AB has

- (A) both A and B antigens
 - (B) no antigens
 - (C) only A antigen
 - (D) only B antigen
3. A person with blood group O has
- (A) no A or B antigens
 - (B) both antigens
 - (C) only A antigen
 - (D) only B antigen
4. Rh antigen is also called the
- (A) D antigen
 - (B) A antigen
 - (C) B antigen
 - (D) O antigen

1 Mark Questions

1. Who discovered the ABO blood group system?
2. Which blood group has no A or B antigens?
3. What is the Rh antigen also called?

2 Mark Questions

1. Explain the ABO blood group system.
2. Why is blood group O called the universal donor?

3 Mark Questions

1. Describe the ABO and Rh blood grouping systems.
2. Explain the significance of blood groups in transfusion.

Coagulation of Blood

MCQ Questions (choose the correct option)

1. The process of forming a blood clot is called
 - (A) coagulation
 - (B) haemolysis
 - (C) clumping
 - (D) filtration
2. Blood clotting is initiated by
 - (A) platelets
 - (B) RBCs
 - (C) WBCs
 - (D) plasma only
3. The insoluble protein that forms the clot is
 - (A) fibrin
 - (B) fibrinogen
 - (C) albumin

- (D) globulin
4. The enzyme that converts fibrinogen to fibrin is
- (A) thrombin
 - (B) pepsin
 - (C) amylase
 - (D) catalase

1 Mark Questions

1. What is coagulation?
2. Name the protein that forms the clot.
3. Which enzyme converts fibrinogen to fibrin?

2 Mark Questions

1. State the steps of blood clotting.
2. What is the role of platelets in clotting?

3 Mark Questions

1. Describe the mechanism of blood coagulation.
2. Explain the role of various factors in blood clotting.

The Human Heart — Structure and Cardiac Cycle

MCQ Questions (choose the correct option)

1. The human heart has
 - (A) four chambers
 - (B) two chambers
 - (C) three chambers
 - (D) five chambers
2. The valve between the left atrium and left ventricle is the
 - (A) bicuspid (mitral) valve
 - (B) tricuspid valve
 - (C) semilunar valve
 - (D) pulmonary valve
3. The pacemaker of the heart is the
 - (A) SA node
 - (B) AV node
 - (C) Purkinje fibres
 - (D) bundle of His
4. The number of heartbeats per minute in a resting adult is about
 - (A) 72
 - (B) 20
 - (C) 150
 - (D) 200

1 Mark Questions

1. How many chambers does the human heart have?
2. What is the pacemaker of the heart?
3. What is the normal resting heart rate?

2 Mark Questions

1. State the events of the cardiac cycle.
2. What is the role of the SA node?

3 Mark Questions

1. Describe the structure of the human heart.
2. Explain the cardiac cycle with reference to systole and diastole.

Double Circulation and ECG

MCQ Questions (choose the correct option)

1. Double circulation means blood passes through the heart
 - (A) twice per cycle
 - (B) once per cycle
 - (C) three times
 - (D) never
2. The ECG records the
 - (A) electrical activity of the heart
 - (B) blood pressure
 - (C) heart rate only
 - (D) blood volume
3. The QRS complex in an ECG represents
 - (A) ventricular depolarisation
 - (B) atrial depolarisation
 - (C) ventricular repolarisation
 - (D) heart block
4. Pulmonary circulation carries blood between the heart and the
 - (A) lungs
 - (B) liver
 - (C) kidney
 - (D) brain

1 Mark Questions

1. What is double circulation?
2. What does an ECG record?
3. What does the QRS complex represent?

2 Mark Questions

1. Distinguish between pulmonary and systemic circulation.
2. What is the significance of double circulation?

3 Mark Questions

1. Explain double circulation with a schematic.
2. Describe the waves of an ECG and their significance.

Disorders of the Circulatory System

MCQ Questions (choose the correct option)

1. High blood pressure is called
 - (A) hypertension
 - (B) hypotension
 - (C) angina
 - (D) thrombosis
2. A condition caused by reduced blood supply to the heart muscle is
 - (A) angina
 - (B) anaemia
 - (C) leukaemia
 - (D) haemophilia
3. Haemophilia is a disorder of
 - (A) blood clotting
 - (B) blood pressure
 - (C) heart rhythm
 - (D) oxygen transport
4. Heart failure is the condition in which the heart
 - (A) does not pump blood effectively
 - (B) beats too fast
 - (C) stops completely
 - (D) enlarges only

1 Mark Questions

1. What is hypertension?
2. Name one disorder of blood clotting.
3. What is angina?

2 Mark Questions

1. Distinguish between hypertension and hypotension.
2. State two disorders of the circulatory system.

3 Mark Questions

1. Describe the disorders of the circulatory system.
2. Explain the causes and effects of hypertension and angina.