

## Transport in Humans

### A. Choose the Correct Answer:

1. What is the main function of the circulatory system in humans?

- A) To break down food
- B) To transport oxygen, nutrients, and waste products
- C) To control body temperature
- D) To produce blood cells

2. Which organ is responsible for pumping blood throughout the body?

- A) Lungs
- B) Liver
- C) Heart
- D) Kidneys

3. What is the function of red blood cells in the human body?

- A) To fight infections
- B) To carry oxygen to different parts of the body
- C) To help in blood clotting
- D) To remove waste from the body

### B. Fill in the Blanks:

1. The human heart has \_\_\_\_\_ chambers that help in pumping blood.
2. Blood vessels that carry oxygenated blood away from the heart are called \_\_\_\_\_.
3. The liquid component of blood that transports nutrients and hormones is called \_\_\_\_\_.

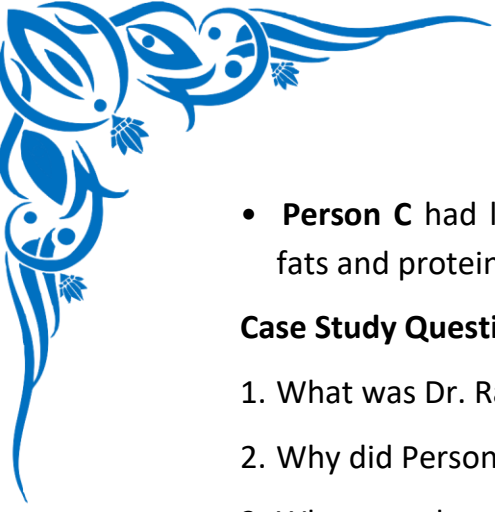
### C. Case Study:

Dr. Rajan, a cardiologist, conducted a study on the effects of lifestyle on heart health. He observed three individuals over a year:

- **Person A** followed a healthy lifestyle with regular exercise and a balanced diet.
- **Person B** had a sedentary lifestyle, consumed junk food, and smoked regularly.
- **Person C** had an extremely low-fat diet but did not engage in physical activities.

After one year, Dr. Rajan recorded the following observations:

- **Person A** had normal blood pressure and a healthy heart.
- **Person B** showed signs of high cholesterol, obesity, and frequent fatigue.



- **Person C** had lower stamina and weaker muscles due to insufficient healthy fats and proteins.

#### **Case Study Questions:**

1. What was Dr. Rajan trying to analyze through his study?
2. Why did Person B face health issues despite consuming a high-calorie diet?
3. What was the major drawback in Person C's lifestyle, and how did it affect their health?
4. Based on this study, why is a balanced lifestyle important for maintaining heart health?

#### **D. Short Answer Questions:**

1. What is the role of blood in the human circulatory system?
2. How do white blood cells protect the body from diseases?
3. What is the difference between arteries and veins?

#### **E. Long Answer Questions:**

1. Explain the structure and function of the human heart.
2. Describe the different components of blood and their roles in the circulatory system.
3. Discuss the impact of an unhealthy lifestyle on heart health and ways to prevent cardiovascular diseases.