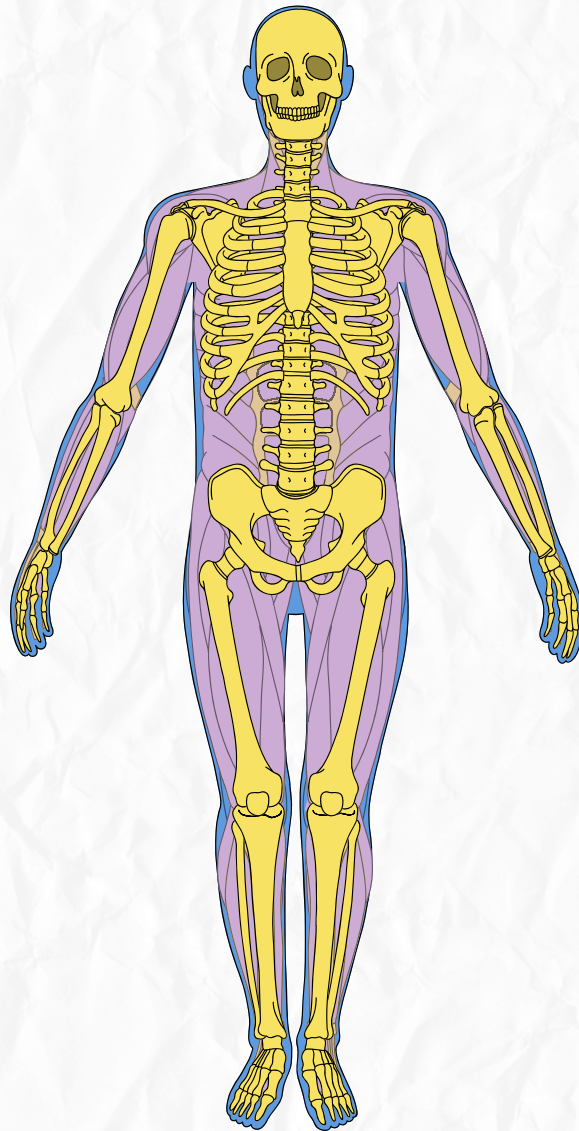


# Physiology

Quiz time



Lab 2

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Q1: What is the main reaction when hemoglobin (Hb) combines with Carbon Monoxide (CO)

- A) Formation of Oxyhemoglobin
- B) Formation of Carbaminohemoglobin
- C) Formation of Carboxyhemoglobin
- D) Formation of Acid Hematin

Q2: In the Sahli method, what is the purpose of adding N/10 Hydrochloric Acid (HCl) to the blood

- A) To prevent blood clotting
- B) To convert hemoglobin into acid hematin
- C) To increase the oxygen-binding capacity
- D) To keep the red blood cells intact

Q3: Which of the following is considered the "Toxic Passenger" that takes over the hemoglobin "Taxi"

- A) Oxygen (O<sub>2</sub>)
- B) Carbon Dioxide (CO<sub>2</sub>)
- C) Carbon Monoxide (CO)
- D) Nitrogen (N<sub>2</sub>)

Q4: During the Sahli hemoglobin estimation, why must we wait for 10 minutes after adding HCl

- A) To allow the blood to clot
- B) To ensure maximum conversion of Hb to acid hematin
- C) To let the solution reach room temperature
- D) To allow the white blood cells to settle

Q5: What is the normal hemoglobin range for an adult female according to the document

- A) 13 - 18 gm/dl
- B) 12 - 16 gm/dl
- C) 14 - 20 gm/dl
- D) 10 - 15 gm/dl

Q6: What happens if the Red Blood Cells are NOT lysed during the hemoglobin estimation process

- A) The color becomes too dark to read
- B) Hemoglobin will not be released for measurement
- C) The oxygen levels will increase significantly
- D) The result will be more accurate

Q7: The Sahli graduated tube has a double scale; one for grams per deciliter (gm/dl) and the other for

- A) Red blood cell count
- B) Percentage of normal hemoglobin
- C) Concentration of the acid used
- D) Volume of distilled water added

Q8: Which type of hemoglobin is formed when it picks up "waste" Carbon Dioxide (CO<sub>2</sub>) from the tissues

- A) Oxyhemoglobin
- B) Reduced hemoglobin
- C) Carbaminohemoglobin
- D) Carboxyhemoglobin

اللَّهُمَّ تَوَفَّنَا مُسْلِمِينَ، وَأَحْيِنَا مُسْلِمِينَ،  
وَأَلْحِقْنَا بِالصَّالِحِينَ، غَيْرَ خَزَايَا وَلَا مَفْتُونِينَ

Q9: What is the final step in the Sahli method to match the color of the ?sample with the standard tubes

- A) Adding more N/10 HCl
- B) Adding more blood
- C) Adding distilled water drop by drop
- D) Stirring without adding any liquids

?Q10: Why are hemoglobin levels generally lower in females than in males

- A) Due to the presence of testosterone in females
- B) Due to periodic blood loss (menstruation) and lack of testosterone
- C) Because females have larger red blood cells
- D) Because females breathe less oxygen

Answer Key

(الإجابات النموذجية):

C | 2. B | 3. C | 4. B | 5. B | 6. B | 7. B | 8. C | 9. C | 10. B.1

سُبْحَانَكَ اللَّهُمَّ وَبِحَمْدِكَ ، أَشْهَدُ أَنْ لَا  
إِلَهَ إِلَّا أَنْتَ ، أَسْتَغْفِرُكَ وَأَتُوبُ إِلَيْكَ .