Self-Assessment RSPT 1050: Module G

1. Name the two ways oxygen is carried in the blood
   A. **DISSOLVED**
   B. **ATTACHED TO HEMOGLOBIN**

2. How is the majority of oxygen carried in the bloodstream? **ATTACHED TO HEMOGLOBIN**.

3. Which ABG parameter is used to assess the patient for hypoxemia? **PaO_2**.

4. Vol% means **mL of substance (i.e. oxygen)/100 mL of blood**.

5. Gm% means **grams of substance (i.e. hemoglobin)/100 mL of blood**.

6. What is the treatment for Methemoglobinemia? **Methylene Blue**.

7. What is the treatment for COHB%
   A. **100% OXYGEN**
   B. **HYPERBARISM**

8. How do you calculate the amount of oxygen dissolved in vol%? **PaO_2 x .003**

9. Given the following information, calculate the CaO_2

   Hb: 12 gm% PaO_2: 77 mm Hg SaO_2: 90%

   CaO_2 = **(12 x 1.34 x .9) + (77 x .003) = 14.47 + .23 = 14.7 vol%**

10. Whose law states that the amount of oxygen dissolved **in** the plasma is proportional to the partial pressure of the gas? **Henry's**

11. Given the normal values for the following

    A. PaO_2 **80 to 100 torr**
    B. SaO_2% **97%**
    C. Hb **13 – 15 g/dL FOR MEN; 12 – 14 g/dL FOR WOMEN**
    D. CaO_2 **20 vol%**
    E. %COHb **LESS THAN 3%**
    F. MetHb % **LESS THAN 1%**
    G. PvO_2 **35 to 45 torr**
    H. SvO_2 **75%**
    I. CvO_2 **15 vol%**
    J. $CaO_2 – CvO_2$ **5 vo%**

12. Each gram of Hb will combine with **1.34** mL of oxygen.

13. Describe the composition of Hemoglobin. **4 HEME GROUPS & AMINO ACID CHAINS**

14. Where does oxygen attach to the Hb molecule?
    ON THE HEME GROUPS

15. What does a pulse oximeter measure? **SpO_2**

16. Normal adult Hb contains which of the following

A. Two alpha and two gamma amino acid chains
B. Two beta and two gamma chains
C. Two alpha and two beta amino acid chains
D. Four beta amino acid chains

17. Methemoglobinemia results when the heme portion of the Hb molecule is oxidized from the **FERROUS** to the **FERRIC** state.