Lab# 5

**Haemoglobin and Anemia**

1. **Hemoglobin Estimation:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Blank** | **Test** |  | |
| 2 ml | 2 ml | **Hemoglobin reagent** | |
| None | 0.01 ml (10µl) | **Blood sample** | |
| Mix, allow to stand at room temperature for 3 min and read the absorbance at 540 nm against hemoglobin reagent | | |

Hb concentration (g/dl) = 29.4 x Abs of test

**Normal Hb conc.: for men: 14 - 18 g/dl.**

**for women: 12 - 16 g\dl**.

1. **Qualitative determination of hemoglobin S (HbS) in blood:**

|  |  |
| --- | --- |
| **Reagent** | **Volume** |
| Sickling solution | 2 ml |
| Patient sample (whole blood) | 0.02 ml (20 μl) |
| **Mix by inversion and allow stand at room temperature for 5 to 10 min** | |
| **Read the test by holding the test tube approximately 3 cm in front of a lined scale on the card.** | |