

Lab (7) Quantitative Determination of Serum Iron, (UIBC), and (TIBC)

▪ **Results:**

	Before adding the reagent (0 min)	
(IRON) (A⁰)	Absorbance of Standard	
	Absorbance Test	
(UIBC) (A')	Absorbance of Standard	
	Absorbance Test	

	After Iron reagent (after 10 min)	
(IRON) (A¹)	Absorbance of Standard	
	Absorbance Test	
(UIBC) (A'')	Absorbance of Standard	
	Absorbance Test	

▪ **Calculations:**

1. Serum iron Conc. In test (µg/dl)=

$$[(A^1 - A^0) \text{ test} / (A^1 - A^0) \text{ Std}] \times \text{Std. iron Conc.}$$

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2. Serum UIBC In test (µg/dl)=

$$\text{Std. iron Conc.} - \{[(A'' - A') \text{ test} / (A'' - A') \text{ Std}] \times \text{Std. iron Conc.}\}$$

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3. Serum TIBC In test (µg/dl)= Serum iron + Serum UIBC

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4. Transferrin saturation (%)= [Serum iron Concentration / TIBC]x 100

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Note: The Std. iron Conc. = 500 µg/dl