Total No of Questions: [6] *SEAT NO. :*

TE/InSem-137

[Total No. of Pages : 1]

T.E. (Instrumentation & Control) (Semester – I)

(INSTRUMENTAL METHODS FOR CHEMICAL ANALYSIS)(InSem.)

Marking Scheme

UNIT-I

Q1)	a)	Explain various units used in chemical analysis. Diagram -2 marks Explnation-2 marks	[4]
	b)	Explain principal and experimental setup of coulometey (any one). Diagram -3 marks Explnation-3 marks	[6]
		OR	
Q2)	a)	Define the following terms & give two examples each for following types of analysis (i)Quantitative analysis (ii)Qualitative Analysis Definition- 1 mark (each) Example - 2 marks (each)	[6]
	b)	Explain Excitation signals in Voltametry. Diagram -2 marks Explnation-2 marks	[4]
		UNIT-II	
Q3)	a)	Explain with neat sketch UV-Visible Spectrophotometer. Diagram -3 marks Explnation-3 marks	[6]
	b)	Explain with neat sketch Pre mixed type burner. Diagram -2 marks Explnation-2 marks	[4]
		OR	
Q4)	a)	State the Beers law and Lamberts Law. Law s - 2 marks (each)	[4]
	b)	Explain the Instrumentation of Atomic Absorption Spectrophotometer (AAS). Diagram -3 marks Explnation-3 marks	[6]
		UNIT – III	
Q5)	a)	Write a short note on Inductively Coupled Plasma (ICP). Diagram -2 marks Explnation-2 marks	[4]
	b)	What are various IR Sources and IR detectors. Explain one each from them. Name of IR sources and detectors-2 marks IR source (any one type)-Diagram and Explanation-2 marks IR Detector (any one type)-Diagram and Explanation-2 marks	[6]
		OR	
Q6)	a)	Write a short notes on Discharge type Atomizer. Diagram-2 marks Explnation-2 marks	[4]
	b)	Explain the principle and working of FTIR spectrophotometer with the help of suitable block diagram. Diagram-2 marks Explnation-4 marks	[6]