Professional programme for Illicit Drugs & HS goods by modern analytical tools at Central Revenues Control Laboratory (WCO/RCL), New Delhi, India (24.02.2025 to 07.03.2025)

1st Week		
Day	**Time**	**Item**
Day-1		
Monday	09.30-10.30	Inaugural Session • Registration • Opening Ceremony
	10.30-11.00	Photo Session / Tea
	11.00 -12.15	Central Revenues Control Laboratory & its other Revenue laboratories of Indian Customs Administration.
	12.15-13.30	Legislative provisions of Narcotics Drugs and PsychotropicSubstances (NDPS) Act,1985 of Govt of India
	13.30-14.30	Lunch
	14.30-15.45	**Class Room Session** Identification and Quantitation of Opiates (Heroin,6-MAM, Morphine, Codeine, Buprenorphine) by FTIR, UV-VIS, GC, GC-MS/MS, LC-MS/MS, HPTLC -MS.
	15.45-16.00	Tea
	16.00-17.00	**Hand-On-Training** Identification & Quantification of Cocaine by Gas Chromatography
	17.00-18.00	**Hand-On-Training:** continue… Examination of analytical dataand their interpretation
Day-2	**Time**	**Item**
Tuesday	09.30-10.45	**Class Room Session:** Determination of Morphine, Codeine Content in Opium and its products by HPLC
	10.45-11.00	Tea
	11.00 -12.15	**Hands-onTraining** Analysis of Morphine, Codeine Content in Opium and its products by HPLC i. The extraction process of morphine and other alkaloids from Opium and its products
	12.15-13.30	**Hands-onTraining**: Continue ii. Elution of alkaloids from Opium and its products by Column Chromatography
	13.30-14.30	Lunch
	14.30-15.45	**Hands-onTraining:** Continue… iii. Identification and Quantification of Morphine & Codeine from Opium and its products by HPLC
	15.45-16.00	Tea
	16.00-17.00	**Hands-onTraining**:Continue…

	17.00-18.00	Calculation and reporting of obtained test result
Day-3	**Time**	**Item**
Wednesday	09.30-10.45	**Class Room Session:** Characterization/profiling of Amphetamines by using ICP-MS, NMR, LC-MS/MS, GC-MS/MS, HPTLC-MS
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:**Characterization/profiling of Amphetamines by using ICP-MS, NMR, LC-MS/MS, GC-MS/MS, HPTLC-MS
	12.15-13.30	**Hands-on Training:** Continue…
	13.30-14.30	Lunch
	14.30-15.45	**Hands-on Training:** Continue…
	15.45-16.00	Tea
	16.00-17.00	**Hands-on Training:** Continue…
	17.00-18.00	Compilation of analytical data, Interpretation & Conclusion of test results
Day-4	**Time**	
Thursday	09.30-10.45	**Class Room** Determination of percentage of alloying elements under the heading Base metal and its articles of Chapter 72 to 83 Section XV by OES & AAS
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:** Determination of percentage of alloying elements in iron and steel, lead and article thereof by OES & AAS
	12.15-13.30	**Hands-on Training:** continue…
	13.30-14.30	Lunch
	14.30 -15.45	**Hands-on Training:** continue…
	15.45-16.00	Tea
	16.00-17.00	**Hands-on Training:** continue…
	17.00-18.00	**Hands-on Training:** continue… Calculation, Interpretation of analytical data and discussion
Day-5	**Time**	**Item**
Friday	09.30-10.45	**Class Room:** Procedure for determination of sulfur content in Coal & mineral oil by Ed-XRF.
	10.45-11.00	Tea
	11.00-13.30	**Hands-on Training:** Procedure for determination of sulfur content in Coal & mineral oil by Ed-XRF.
	13.30-14.30	Lunch
	14.30 -15.45	**Hands-on Training:** Determination of Gross Calorific Value in mineral oil by Automatic Bomb Calorimeter
	15.45-16.00	Tea
	16.00-18.00	Results and discussion
Saturday		Study Tour Taj Agra

Sunday		Holiday
2nd Week		
Day-6	**Time**	**Item**
Monday	09.30-10.45	**Class Room** Overview of Quantification of 24 Banned Amines in Textile & Textile products and Leather by HPLC.
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:** Quantification of 24 Banned Amines in Textile & Textile products and Leather by HPLC.
	12.15-13.30	**Hands-on Training**:Continue…
	13.30-14.30	Lunch
	14.30 -15.45	**Hands-on Training:** Continue…
	15.45-16.00	Tea
	16.00-18.00	**Hands-on Training**: Continue… Compilation of analytical data, calculation and reporting of result
Day-7	**Time**	
Tuesday	09.30-10.45	**Class Room** Quantification of Polychlorinated Biphenyls (PCBs) , Poly Aromatic Hydrocarbons (PAHs), and Pesticides in waste oil / Transformer Oil by GC-MS/MS.
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:** Quantification of Polychlorinated Biphenyls (PCBs) , Poly Aromatic Hydrocarbons (PAHs), and Pesticides in waste oil / Transformer Oil by GC-MS/MS.
	12.15-13.30	**Hands-on Training**:Continue...
	13.30-14.30	Lunch
	14.30 -15.45	**Hands-on Training**:Continue...
	15.45-16.00	Tea
	16.00-18.00	**Hands-on Training**: Continue. Compilation of analytical data, calculation, and discussion
Day-8	**Time**	
Wednesday	09.30-10.45	**Class Room** **Testing of Alcoholic Beverages** Brandy, Country Liquors, Fenny or Feni, Gin, Rum,Vodka,Liqueur or Cordial or Aperitifs,Whisky or WhiskeyPot-still distilled spirit, Wine, BeerDraught beer
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:** Instrumental Analysis ofHigherAlcohols asAmylAlcohol, MethylAlcohol, Furfural, and Aldehydesasacetaldehyde in Acholic Beverages
	12.15-13.30	**Hands-on Training:** Continue…
	13.30-14.30	Lunch
	14.30-15.45	**Hands-on Training:** Continue…
	15.45-16.00	Tea
	16.00-18.00	**Hands-on Training:** Continue… Compilation of Analytical data and Calculation

Day-9	Time	
Thursday	09.30-10.45	**Class Room** Determination of residual contaminants(Melamine,Agaric Acid, Safrole, and Ochratoxin A)in Alcoholic Beverages by HPLC, LC-MS/MS & GC-MS/MS
	10.45-11.00	Tea
	11.00 -12.15	**Hands-on Training:** Residual contaminants(Melamine,Agaric Acid, Safrole, and Ochratoxin A)in Alcoholic Beverages by HPLC, LC-MS/MS & GC-MS/MS
	12.15-13.30	**Hands-on Training:** Continue…
	13.30-14.30	Lunch
	14.30-15.45	**Hands-on Training:** Continue…
	15.45-16.00	Tea
	16.00-18.00	**Hands-on Training:** Continue… Compilation of Analytical data and Calculation
Day-10	**Time**	
Friday	09.30-10.45	**Class Room –** AOX analyzer Principle, instrumentation, and its application to the determination of total halide content inpetroleum products
	10.45-11.00	Tea
	11.00 -13.30	**Hands-on Training:** Analysis of Halide content by AOX Analyser
	13.30-14.30	Lunch
	14.30-15.45	**Evaluation**
	15.45-16.00	Tea
	16.00-17.00	Feedbackanddiscussion, distribution of certificates &Closing Ceremony
	17.00-18.00	

*****