## Quality Control Tests & Hands on Practices

Day 1	
9:45-13:00	Quality Control Tests on Soil
14:00-17:00	➤ Sieve Analysis
	Modified Proctor Test
	➤ Liquid Limit & Plastic Limit
	> Field Density
	► CBR
	► DCP
	Unconfined Compressive Strength(UCS)
	Permeability Test
Day 2	
9:45-15:30	Quality Control Tests on Aggregates
	Sieve Analysis
	Los Angeles Abrasion Value
	➤ AIV
	➤ Flakiness and Elongation Index
	➤ Water Absorption
	> Soundness
	Specific Gravity
	Stripping Test
15:45-17:15	Quality Control Tests on Bitumen
	Penetration
	Ductility
	> Viscosity
	➤ Softening Point
	Elastic Recovery
	Flash & Fire point
	Residue by Evaporation 0f Emulsion
Day 3	
9:45-11.15	Quality Control Tests on Bitumen Contd.
11:30-17:15	Bituminous Mix Design & Tests
	Marshall Method
	> Stability, Flow
	➤ Voids in Mineral Aggregate(VMA)
	➤ Voids filled with bitumen (VFB)
	> Density
	> Optimum Binder Content
	➤ Bitumen Extraction
- ·	➤ Core Density of Compacted layers
Day 4	
9:45-11.15	Bituminous Mix Design & Tests Contd.
11:30-15:30	Quality Control Tests on Cement
	Consistency
	> Fineness
	> Initial and Final Setting Time
	Compressive Strength
	> Soundness Test

15:45-17:15	Design of Concrete Mixes& Tests
	Mix Design (Structural Concrete and Pavement Quality Concrete)
	<ul><li>Workability (Slum, Flow Table &amp; Compaction Factor)</li></ul>
	Setting Time of Concrete Mixes
	Compressive Strength
	> Flexural Strength
Day 5	
9:45-15.30	Design of Concrete Mixes& Tests contd
15.45-17.00	Quality Control of Proprietary Items
17.00-17-15	Feedback and Conclusion

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