Mechanical Lab

MASS TRANSFER LAB

S NO.	MODAL	DESCRIPTION
1)	MT 101	Solid-Liquid Extraction (Packed Bed Type)
2)	MT 102	Absorption In Wetted Wall Column
3)	MT 103	Packed Distillation Column
4)	MT 104	Bubble Cap Distillation Column
5)	MT 105	SIMPLE STEAM Distillation SET-UP
6)	MT 106	Swenson Walker Crystallizer
7)	MT 107	Absorption In Packed Bed
8)	MT 108	Liquid Liquid Extraction In Packed Bed
9)	MT 109	Sieve Plate Distillation Column
10)	MT 110	Spray Extraction Column
11)	MT 111	Absorption In Sieve Plate Column
12)	MT 112	Fluidized Bed Dryer
13)	MT 113	Vapor In Air Diffusion Apparatus
14)	MT 114	Forced Draft Tray Dryer
15)	MT 115	Fixed Bed Adsorption With Regeneration
16)	MT 116	Solid In Air Diffusion Apparatus
17)	MT 117	Natural Draft Tray Dryer
18)	MT 118	York Scheibel's Extraction Column
19)	MT 119	Liquid in Liquid Diffusion Apparatus
20)	MT 120	Rotary Dryer
21)	MT 121	Batch Crystallizer
22)	MT 122	Mass Transfer With/Without Chemical Reaction (Solid-Liquid System)
23)	MT 123	Solid-Liquid Extraction (Bonnoto Type)
24)	MT 124	Vapor-Liquid Equilibrium Set-Up
25)	MT 125	Wetted Wall Column
26)	MT 126	Experimental Water Cooling Tower
27)	MT 127	ION Exchange
28)	MT 128	Humidification & De-humidification Apparatus

HEAT TRANSFER LAB

S NO.	MODAL	DESCRIPTION
1)	HT 101	Heat Transfer From A Pin Fin
2)	HT 102	Thermal Conductivity Of Insulating Slab
3)	HT 103	Stefan Boltzman Apparatus
4)	HT 104	Heat Transfer Through Lagged Pipe
5)	HT 105	Heat Transfer Through Composite Walls
6)	HT 106	Thermal Conductivity Of Liquids
7)	HT 107	Heat Transfer In Forced Convection
8)	HT 108	Heat Transfer In Natural Convection
9)	HT 109	Thermal Conductivity Of Metal Rod
10)	HT 110	Heat Pipe Demonstrator

11)	HT 111	Vertical & Horizontal Condenser (Steam To Water)

12)	HT 112	Vertical & Horizontal Condenser (Water To Water)
13)	HT 113	Calandria Evaporator
14)	HT 114	Dropwise / Filmwise Condensation Apparatus
15)	HT 115	Thermal Conductivity Of Insulating Powder
16)	HT 116	Emissivity Measurement Apparatus
17)	HT 117	Open Pan Evaporator
18)	HT 118	Shell & Tube Heat Exchanger
19)	HT 119	Heat Transfer In Agitated Vessel
20)	HT 120	Single Effect Evaporator
21)	HT 121	Parallel /Counter Flow Heat Exchanger
22)	HT 122	Unsteady State Heat Transfer Unit
23)	HT 123	Multi Effect Evaporator
24)	HT 124	Finned Tube Heat Exchanger
25)	HT 125	Pool boiling apparatus
26)	HT 126	Calibration of thermocouple
27)	HT 127	Critical Insulating Thickness apparatus
28)	HT 128	Guarded hot plate method
29)	HT 129	COP plate type heat exchanger

MECHANICAL OPERATION LAB

S NO.	MODAL	DESCRIPTION
1)	MO 101	Rod Mill
2)	MO 102	Sigma Mixer
3)	MO 103	Gyratory Type Sieve Shaker
4)	MO 104	Rotap Type Sieve Shaker
5)	MO 105	Vibration Type Sieve Shaker
6)	MO 106	Test Sieves
7)	MO 107	Bucket Conveyor
8)	MO 108	Ribbon Blender
9)	MO 109	Effectiveness Of Power Consumption In Fluid Mixing
10)	MO 110	Hammer Mill
11)	MO 111	Classifiers (cone Type)
12)	MO 112	Froth Floatation Cell
13)	MO 113	Thickner (sedimentation Apparatus)
14)	MO 114	Laboratory Pulveriser
15)	MO 115	Jaw Crusher
16)	MO 116	Roll Crusher
17)	MO 117	Trommel
18)	MO 118	Ball Mill
19)	MO 119	Cyclone Separator
20)	MO 120	Vibrating Screen
21)	MO 121	Attrition Mill
22)	MO 122	Elutriator
23)	MO 123	Screw Conveyors
24)	MO 124	Magnetic Separator
25)	MO 125	Plate & Frame Filter Press

26)	MO 126	Leaf Filter
27)	MO 127	Mineral Jig
28)	MO 128	Belt Conveyors
29)	MO 129	Rotary Vacuum Filter
30)	MO 130	Power Consumption In Agitated Vessel

Hydraulic Machine LAB

S NO.	MODAL	DESCRIPTION
1)	HM 101	Francis Turbine Test Setup 1 HP
2)	HM 102	Multi Stage Air Compressor Test Setup
3)	HM 103	Axial Fan Test Setup
4)	HM 104	Gear Pump Test Setup AC
5)	HM 104 A	Gear Pump Test Setup DC
6)	HM 105	Reciprocating Pump Test Setup AC
7)	HM 105 A	Reciprocating Pump Test Setup DC
8)	HM 106	Hydraulic Ram Test Setup 1 HP
9)	HM 107	Jet Pump Test Setup
10)	HM 108	Centrifugal Pump Test Setup AC
11)	HM 108 A	Centrifugal Pump Test Setup DC
12)	HM 109	Kaplan Turbine Test Setup 1 HP
13)	HM 110	Centrifugal Blower Test Setup
14)	HM 111	Pelton Wheel Turbine Test Setup 1 HP
15)	HM 112	Single Stage Air Compressor Test Setup
16)	HM 113	Submersible Pump Test Setup
17)	HM 114	Multi Stage Centrifugal Pump Test Setup
18)	HM 115	Double Stage Air Compressor Test Setup
19)	HM 116	Centrifugal Pump With interchangeable impellers
20)	HN 117	Free and Forced vortex apparatus
21)	HM 118	Wind tunnel 3 meter
22)	HM 119	Tilting flume apparatus 2.5 meter
23)	HM 120	Two stage reciprocating pump setup

Theory of Machine LAB

S NO.	MODAL	DESCRIPTION
1)	TOM 101	Whirling Of Shafts Demonstrator
2)	TOM 102	Cam Analysis Machine

3)	TOM 103	Michell Tilting Pad Bearing Apparatus
4)	TOM 104	Universal Vibration Apparatus
5)	TOM 105	Slip & Creep Measurement Apparatus
6)	TOM 106	Static & Dynamic Balancing Apparatus
7)	TOM 107	Motorized Gyroscope
8)	TOM 108	Coriollis Component Of Acceleration
9)	TOM 109	Epicyclic Gear Train Apparatus
10)	TOM 110	Journal Bearing Apparatus
11)	TOM 111	Universal Governor Apparatus
12)	TOM 112	Bar pendulum and compound pendulum apparatus
13)	TOM 113	Trifilar suspension apparatus
14)	TOM 114	Moment of equation

Fluid Mechanics LAB

S NO.	MODAL	DESCRIPTION
1)	FM 101	Study of Pipe Fittings
2)	FM 102	Orifice & Mouthpiece Apparatus
3)	FM 103	Bernoulli's Theorem Apparatus
4)	FM 104	Friction In Pipe Lines Apparatus
5)	FM 105	Notch Apparatus
6)	FM 106	Metacentric Height Apparatus
7)	FM 107	Impact of Jet On Vanes Apparatus
8)	FM 108	Nozzle Meter Apparatus
9)	FM 109	Pipes in parallel
10)	FM 110	Hydraulic Bench With 6 experiments accessories
11)	FM 111	Reynold' Apparatus
12)	FM 112	Pitot Static Tube Apparatus
13)	FM 113	Helical coil Apparatus
14)	FM 114	Equivalent length of pipes
15)	FM 115	Pipes in series
16)	FM 116	Venturimeter, Orificemeter & Rotameter Apparatus
17)	FM 116 A	Venturimeter and orificemeter apparatus
18)	FM 116 B	Venturimeter apparatus
19)	FM 116 C	Orificemeter apparatus
20)	FM 116 D	Rotameter apparatus
21)	FM 117	Electrical analogy apparatus
22)	FM 118	Bendmeter apparatus

23)	FM 119	Current meter open channel
24)	FM 119	Current meter close channel
25)	FM 120	Stokes law drag's coefficient
26)	FM 120 A	Stokes law falling sphere
27)	FM 121	Helesaw apparatus

Momentum of Transfer lab/Fluid Mechanics LAB

S NO.	MODAL	DESCRIPTION
1)	MOT 101	Hydrodynamics of Packed Bed
2)	MOT 102	Pressure Drop through Packed Bed
3)	MOT 103	Pressure Drop in Two Phase Flow
4)	MOT 104	Flow Through Fluidized Bed Characteristics
5)	MOT 105	Drag Co-efficient Apparatus
6)	MOT 106	Flow Through Helical Coil

CHEMICAL REACTION ENGINEERING LAB

S NO.	MODAL	DESCRIPTION
1.	CRE 101	RTD studies in C.S.T.R.
2.	CRE 102	Adiabatic batch reactor

3.	CRE 103	Emulsion polymerization set-up
4.	CRE 104	Isothermal C.S.T.R.
5.	CRE 105	Annular UV photo reactor
6.	CRE 106	Plug flow reactor (Straight Tube Type)
7.	CRE 107	Cascade C.S.T.R
8.	CRE 108	Isothermal plug flow reactor (Coiled Tube type)
9.	CRE 109	Plug flow reactor (Coiled tube type)
10.	CRE 110	Recycled bed reactor
11.	CRE 111	Isothermal batch reactor
12.	CRE 112	Isothermal semi-batch reactor
13.	CRE 113	Continuous stirred tank reactor (C.S.T.R)
14.	CRE 114	Packed bed reactor
15.	CRE 115	RTD studies in plug flow reactor
16.	CRE 116	Combined flow reactor
17.	CRE 117	Condensation polymerization set up.
18.	CRE 118	Kinetics of dissolution of benzonic acid
19.	CRE 119	Hydrodynamics of trickle bed reactor
20.	CRE 120	Spinning basket reactor
21.	CRE 121	RTD of packed bed reactor

ENVIRONMENTAL & BIO ENGINEERING LAB

S NO.	MODAL	DESCRIPTION
1.	ENV 101	Deep bed filter column
2.	ENV 102	Aeration unit
3.	ENV 103	Anaerobic digester
4.	ENV 104	Bio-gas digester
5.	ENV 105	Aerobic digester
6.	ENV 106	Flocculation unit
7.	ENV 107	Sedimentation studies apparatus
8.	ENV 108	Model sedimentation studies apparatus
9.	ENV 109	Model sedimentation tank
10.	ENV 110	Drainage & seepage tank

Petrol Engine **IC Engine Test Setups**

S NO.	MODAL	DESCRIPTION
1)	TH 101	1 Cylinder 2 Stroke Engine with rope brake dynamometer
2)	TH 101 A	1 cylinder 2 stroke engine with electrical brake dynamometer
3)	TH 102	1 Cylinder 4 Stroke Engine with rope brake dynamometer
4)	TH 102 A	1 Cylinder 4 Stroke Engine with Electrical brake dynamometer
6)	TH 104	4 Cylinder 4 Strokes Engine with rope brake dynamometer

7)	TH 104 A	4 Cylinder 4 Strokes Engine with Electrical brake dynamometer dynamometer
8)	TH 104 B	4 Cylinder 4 Strokes Engine with Hydraulic brake dynamometer
9)	TH 104 C	4 Cylinder 4 Strokes Engine with Eddy current brake dynamometer

Deisel Engine.

S NO.	MODAL	DESCRIPTION
2)	TH 106	1 Cylinder 4 Stroke, (Water cooled) with rope brake dynamometer.
3)	TH 106 A	1 Cylinder 4 Stroke, (Water cooled) with Electrical brake dynamometer.
4)	TH 107	2 Cylinder 4 Stroke, (Water cooled
5)	TH 108	4 Cylinder 4 Stroke, (Water cooled) with Rope brake dynamometer.
6)	TH 108	4 Cylinder 4 Stroke, (Water cooled) with Electrical brake dynamometer.
7)	TH 108	4 Cylinder 4 Stroke, (Water cooled) with Hydraulic brake dynamometer.
8)	TH 108	4 Cylinder 4 Stroke, (Water cooled) with Eddy current brake dynamometer.

Refrigeration & Air Conditioning LAB

S NO.	MODAL	DESCRIPTION
1)	TD 101	Refrigeration Trainer
2)	TD 102	Air Conditioning Trainer
3)	TD 103	Ice Plant Trainer
4)	TD 104	Water to Water Heat Pump (Mechanical Heat Pump)
5)	TD 105	Water to Air Heat Pump (Mechanical Heat Pump)
6)	TD 106	Water Cooler Trainer (1 Tr)
7)	TD 107	Cooling tower test rig
8)	TD 108	Mini cold store trainer
9)	TD 109	COP of heat pump