PARUL UNIVERSITY

WAGHODIA, VADODARA

Subject Teaching & Examination Scheme

Course: M.Sc. I **Curriculum:** Industrial Chemistry (New Program)

Semester - 1

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Advanced Petrochemical Technology	4	4	-	-	20	-	20	60	-	50	-	100
Industrial Polymer	4	4	-	-	20	-	20	60	-	50	-	100
Introduction of Synthetic Dyes and Drugs	4	4	-	-	20	-	20	60	-	50	-	100
Basic Communication Skills	4	4	-	-	20	-	20	60	-	50	-	100
Lab – 1 (Petrochemical Technology)	4	-	6	-	-	40	-	-	60	-	50	100
Lab – 2 (Synthesis of Dyes and Drugs)	4	-	6	-	-	40	-	-	60	-	50	100
M.Sc. Ind. Chem. 1 (Compulsory Subject : 1)	4	4	-	-	-	-	-	-	-	-	-	100
Total	**28**											**700**

Semester – 1 (M.Sc. Ind. Chem. 1)

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Environmental Pollution Control Technology	4	4	-	-	20	-	20	60	-	50	-	100
Entrepreneurship and Innovations	4	4	-	-	20	-	20	60	-	50	-	100

Lect – Lecture, **Tut** – Tutorial, **Lab** – Laboratory, **T** – Theory, **P** – Practical, **hrs** – hours, **CE** – Continuous Evaluation

Theory Passing % : 50, **Practical Passing %** : 50

Semester - 2

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Pharmaceutical Technology	4	4	-	-	20	-	20	60	-	50	-	100
Advancement in Industrial Operations	4	4	-	-	20	-	20	60	-	50	-	100
Advanced Spectroscopy and Chromatography	4	4	-	-	20	-	20	60	-	50	-	100
Professional Communication Skills	4	4	-	-	20	-	20	60	-	50	-	100
Lab – 1 (Industrial Production Operations)	4	-	6	-	-	40	-	-	60	-	50	100
Lab – 2 (Synthesis of Medicinal Chemicals)	4	-	6	-	-	40	-	-	60	-	50	100
M.Sc. Ind. Chem. 2 (Compulsory Subject : 1)	4	4	-	-	-	-	-	-	-	-	-	100
Total	**28**											**700**

Semester – 2 (M.Sc. Ind. Chem. 2)

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Medicinal Chemistry	4	4	-	-	20	-	20	60	-	50	-	100
Materials & Utilities in Chemical Industry	4	4	-	-	20	-	20	60	-	50	-	100

Lect – Lecture, **Tut** – Tutorial, **Lab** – Laboratory, **T** – Theory, **P** – Practical, **hrs** – hours, **CE** – Continuous Evaluation
Theory Passing % : 50, **Practical Passing %** : 50

Semester - 3

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Industrial Process Control Technology	4	4		-	20	-	20	60	-	50	-	100
Process Development Technology	4	4		-	20	-	20	60	-	50	-	100
Basic Name Reactions in Chemistry	4	4		-	20	-	20	60	-	50	-	100
Green Chemistry	4	4		-	20	-	20	60	-	50	-	100
Dissertation	8	-	16	-	-	80	-	-	120	-	100	200
M.Sc. Ind. Chem. 3 (Compulsory Subject : 1)	4	4	-	-	-	-	-	-	-	-	-	100
Total	**28**											**700**

Semester – 3 (M.Sc. Ind. Chem. 3)

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs)	Lab (hrs)	Tut (hrs)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Industrial Safety Management	4	4	-	-	20	-	20	60	-	50	-	100
Business Management in Chemical Industry	4	4	-	-	20	-	20	60	-	50	-	100

Lect – Lecture, **Tut** – Tutorial, **Lab** – Laboratory, **T** – Theory, **P** – Practical, **hrs** – hours, **CE** – Continuous Evaluation
Theory Passing % : 50, **Practical Passing %** : 50

Semester – 4

Students are going compulsory for an Internship (in Industry) and /or research work (Academic) in the last (4th) Semester.

At the end of the semester, all students have to submit their internship / research work reports.

Subject Name	Teaching Scheme				Examination Scheme							
	Credit	Lect (hrs / Sem)	Lab (hrs / Sem)	Tut (hrs / Sem)	Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total marks
					T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
Industrial Internship / Academic research work	16	-	480	-	-	150	-	-	250	-	200	400
Total	**16**											**400**

Lect – Lecture, **Tut** – Tutorial, **Lab** – Laboratory, **T** – Theory, **P** – Practical, **CE** – Continuous Evaluation, **hrs** – hours, **Sem** - Semester
Theory Passing % : 50, **Practical Passing %** : 50