7. STUDY AND EVALUATION SCHEME FOR DIPLOMA PROGRAMME IN CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

FIRST SEMESTER

Sr. No	Subject	STUDY SCHEME			EVALUATION SCHEME						Total Marks
					Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
		Hrs/week			Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
		L	T	P							
1.1*	Communication Skills - I	3	-	2	25	25	100	3	50	2	200
1.2*	Applied Mathematics - I	5	-	-	50	-	100	3	-	-	150
1.3*	Applied Physics – I	4	-	2	25	25	100	3	50	3	200
1.4*	Applied Chemistry – I	3	-	2	25	25	100	3	50	3	200
1.5*	Basics of Information Technology	-	-	4	-	50	-	-	100	3	150
1.6*	Engineering Drawing - I	-	-	6	-	50	100	3	25 (Viva)	2	175
1.7*	General Workshop Practice - I	-	-	6	-	50	-	-	+100	3	150
# Student Centred Activities		-	-	3	-	25	-	-	-	-	25
Total		15	-	25	125	250	500	-	375	-	1250

***** Common with other diploma programmes

\+ Includes 25 marks for Viva-voce

\# Student Centred Activities will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc.

SECOND SEMESTER - CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

Sr. No	Subject	STUDY SCHEME			EVALUATION SCHEME						Total Marks
					Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
		Hrs/week			Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
		L	T	P							
2.1*	Communication Skills – II	3	-	2	25	25	100	3	50	2	200
2.2*	Applied Mathematics - II	5	-	-	50	-	100	3	-	-	150
2.3*	Applied Physics – II	4	-	2	25	25	100	3	50	3	200
2.4*	Applied Chemistry – II	3	-	2	25	25	100	3	50	3	200
2.5**	Applied Mechanics	3	-	2	25	25	100	3	50	3	200
2.6*	Engineering Drawing - II	-	-	6	-	50	100	3	25 (Viva)	2	175
2.7*	General Workshop Practice - II	-	-	6	-	50	-	-	+100	3	150
#	Student Centred Activities	-	-	2	-	25	-	-	-	-	25
Total		18	-	22	150	225	600	-	325	-	1300

***** Common with other diploma programmes

** Common with diploma programmes in Chemical Engineering, Mechanical Engineering and Civil Engineering

\+ Includes 25 marks for Viva-voce

\# Student Centred Activities will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc.

THIRD SEMESTER - CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

Sr. No	Subject	L T P Hrs/week			EVALUATION SCHEME						Total Marks
					Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
					Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
3.1*	Engineering Fundamentals	4	-	2	25	25	100	3	50	3	200
3.2	Paint Technology – I	3	-	2	25	25	100	3	50	3	200
3.3**	Fluid Flow	4	-	3	25	25	100	3	50	3	200
3.4*	Polymer Science	3	-	-	25	-	100	3	-	-	125
3.5**	Chemical Process Calculations	4	-	-	25	-	100	3	-	-	125
3.6**	Mechanical Operations	3	-	3	25	25	100	3	50	3	200
3.7+	Computer Aided Drafting	-	-	3	-	50	-	-	50	3	100
# Student Centered Activities		-	-	6	-	25	-	-	-	-	25
	Total	**21**	**-**	**19**	**150**	**175**	**600**	**-**	**250**	**-**	**1175**

***** Common with diploma programmes in Chemical Engineering (Spl. in Polymer Engineering) and Rubber Technology

****** Common with diploma programmes in (i) Chemical Engineering, (ii) Chemical Engineering (Spl. in Polymer Engineering) and (iii) Chemical Engineering (Spl. in Pulp and Paper)

\+ Common with diploma programmes in Mechanical Engineering (CAD/CAM Design and Robotics), Automobile Engineering, Chemical Engineering (Spl. in Polymer Engineering) and Rubber Technology

\# SCA will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc..

FOURTH SEMESTER - CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

Sr. No	Subject	L	T	P	EVALUATION SCHEME						Total Marks
		Hrs/week			Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
					Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
4.1	Resin Technology - I	4	-	2	25	25	100	3	50	3	200
4.2	Paint Technology - II	3	-	2	25	25	100	3	50	3	200
4.3*	Heat Transfer	4	-	3	25	25	100	3	50	3	200
4.4*	Mass Transfer	4	-	3	25	25	100	3	50	3	200
4.5**	Chemical Engineering Thermodynamics	4	-	-	25	-	100	3	-	-	125
4.6	Pigment Technology	4	-	2	25	25	100	3	50	3	200
# Student Centered Activities		-	-	5	-	25	-	-	-	-	25
Total		**23**	**-**	**17**	**150**	**150**	**600**	**-**	**250**	**-**	**1150**

***** Common with diploma programmes in (i) Chemical Engineering (Spl. in Polymer Engineering), (ii) Chemical Engineering (Spl. in Pulp and Paper)

** Common with diploma programmes in (i) Chemical Engineering, (ii) Chemical Engineering (Spl. in Polymer Engineering) and (iii) Chemical Engineering (Spl. in Pulp and Paper)

SCA will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc..

Industrial Training

After examination of 4th Semester, the students will go for training in a relevant industry/field organisation for a minimum period of 4 weeks. He/She will be evaluated by his/her training officer in the industry/ organization (to be assigned in 5th semester).

FIFTH SEMESTER - CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

S. No	Subject	L T P Hrs/week			EVALUATION SCHEME						Total Marks
					Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
					Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
	Industrial Training	-	-	-	-	50	-	-	50	3	100
5.1	Resin Technology – II	4	-	4	25	25	100	3	50	3	200
5.2	Quality Control and Testing of Coatings	4	-	4	25	25	100	3	50	3	200
5.3**	Chemical Reaction Engineering	4	-	-	25	-	100	3	-	-	125
5.4	Adhesives and Surface Coatings - I	4	-	4	25	25	100	3	50	3	200
5.5*	Employability Skills - I	-	-	2	-	25	-	-	50	3	75
5.6*	Environmental Education	3	-	-	25	-	100	3	-	-	125
# Student Centered Activities		-	-	7	-	25	-	-	-	-	25
Total		**19**	**-**	**21**	**125**	**175**	**500**	**-**	**250**	**-**	**1050**

* Common with other diploma programmes

****** Common with diploma programmes in (i) Chemical Engineering, (ii) Chemical Engineering (Spl. in Polymer Engineering) and (iii) Chemical Engineering (Spl. in Pulp and Paper)

\# SCA will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc..

SIXTH SEMESTER - CHEMICAL ENGINEERING (SPECIALISATION IN PAINT TECHNOLOGY)

S. No	Subject	L	T	P	EVALUATION SCHEME						Total Marks
		Hrs/week			Internal Assessment		External Assessment (Examination)				
					Theory	Practical	Written Paper		Practical		
					Max. Marks	Max. Marks	Max. Marks	Hrs	Max. Marks	Hrs	
6.1+	Process Plant Utilities	4	-	-	25	-	100	3	-	-	125
6.2	Corrosion Engineering	4	-	-	25	-	100	3	-	-	125
6.3	Adhesives and Surface Coatings - II	4	-	-	25	-	100	3	-	-	125
6.4**	Process Instrumentation and Control	4	-	3	25	25	100	3	50	3	200
6.5*	Employability Skills - II	-	-	2	-	25	-	-	50	3	75
6.6*	Entrepreneurship Development and Management	3	-	-	25	-	100	3	-	-	125
6.7	Project Work	-	-	10	-	50	-	-	100	3	150
# Student Centered Activities		-	-	6	-	25	-	-	-	-	25
Total		**19**		**21**	**125**	**125**	**500**	**-**	**200**	**-**	**950**

* Common with other diploma programmes

** Common with diploma programmes in (i) Chemical Engineering, (ii) Chemical Engineering (Spl. in Polymer Engineering) and (iii) Chemical Engineering (Pulp and Paper)

\+ Common with diploma programmes in Chemical Engineering and Chemical Engineering (Pulp and Paper)

\# SCA will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc..