STUDY SCHEME FOR THIRD SEMESTER LATERAL AND ITI PASSED STUDENTS

3rd SEMESTER {CIVIL AND ENVIRONMENTALENGINEERING }

Sr. No.	SUBJECTS	COURSE TYPE & CATEGORY	STUDYSCHEME Periods/Week			Credits	MARKSINEVALUATIONSCHEME								TotalMarksofInternal & External
							INTERNALASSESSMENT			EXTERNALASSESSMENT					
			L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	CONSTRUCTION MATERIALS	PROGRAM CORE (PRACTICUM/THEORY)	02	-	02	2+1=3		40	40	60	3	-	-	60	100
3.2	BASIC SURVEYING	PROGRAM CORE (THEORY)	01	-	-	1+0=1	40	-	40	60	3	-	-	60	100
3.3	BASIC SURVEYING LAB	PROGRAM CORE (PRACTICAL)	-	-	04	0+2=2	-	60	60	-	-	40	3	40	100
3.4	MECHANICS OF MATERIAL	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
3.5	MECHANICS OF MATERIAL LAB	PROGRAM CORE (PRACTICAL)	-	-	02	0+1=1	-	60	60	-	-	40	3	40	100
3.6	BUILDING CONSTRUCTION	PROGRAM CORE (PRACTICUM/THEORY)	02	-	02	2+1=3	40	-	40	60	3	-	-	60	100
3.7	BUILDING PLANNING AND DRAWING	PROGRAM CORE (PRACTICUM/PRACTICAL)	01	-	04	1+2=3	-	60	60	-	-	40	3	40	100
3.8	CONCRETE TECHNOLOGY	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
3.9	CONCRETE TECHNOLOGY LAB	PROGRAM CORE (PRACTICAL)	-	-	04	0+2=2	-	60	60	-	-	40	3	40	100
3.10	* MINOR PROJECT	PRACTICAL	-	-	-	1	-	50	50	-	-	-	-	-	50
#STUDENTCENTEREDACTIVITIES			-	-	08	-	-	50	50	-	-	-	-	-	50
Total			**10**	**-**	**26**	**20**	**160**	**380**	**540**	**300**	**-**	**160**	**-**	**460**	**1000**

*Lateral entry students shall undertake a minor project and deliver a presentation on the same. This project will serve as an equivalent to Summer Internship-I for the purpose of earning the associated credits and marks..

StudentCenteredActivitieswillcompriseofco-curricularactivitieslikeextensionlectures,games,hobbyclubse.g.photographyetc., seminars,declamationcontests,educationalfieldvisits,N.C.C.,NSS, library, CulturalActivitiesandself-studyetc.

1) Eachperiodwillbe60minutesduration.
2) Eachsessionwillbeof16weeks.
3) Effectiveteachingwillbeatleast14week.

A. COMPULSORY SUBJECT OF I-SEMESTER CIVIL AND ENVIRONMENTAL ENGINEERINGTO BE TAUGHT IN III SEMESTER TO ITI PASSED STUDENTS OF TRADES ARE AS FOLLOWS :-

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
1.1	*Mathematics-I	2	1	-	3+0=3	40	-	**40**	60	3	-	-	**60**	100
1.2	*AppliedPhysics-I	3	-	2	3+1=4	40	60	**100**	60	3	40	3	**100**	200
1.3	*AppliedChemistry	3	-	2	3+1=4	40	60	**100**	60	3	40	3	**100**	200
1.4	*CommunicationSkillsin English	3	-	2	3+1=4	40	60	**100**	60	3	40	3	**100**	200
TOTAL		**8**	**1**	**6**	**15**	**160**	**180**	**340**	**240**		**120**		**360**	**700**

(*) It is compulsory to appear & to pass in examination From III Semester To VI Semester, But credit/marks will not be included for division and percentage of obtained marks.

(*) Four Semester (Two Years) of Extra Time will be given after diploma curriculum period (If Required) to pass the above paper (1.1 To 1.4 and 2.1To 2.2) examination (As Per G. O. No. 2221/16-Pra. Shi.-3-2009 Dated 28-08-2009) & Revised G.O. No. 2704/16-Pra.Shi.-3-2013-46(8)/2002 Dated 09-01-2013 and B.T.E Order No. Pra.Shi.Pa/C.D.C./2022/872021 Dated 21.02.22

4th SEMESTER {CIVIL AND ENVIRONMENTAL ENGINEERING}

Sr. No.	SUBJECTS	COURSE TYPE & CATEGORY	STUDYSCHEME Periods/Week			Credits	MARKSINEVALUATIONSCHEME								TotalMarksofInternal & External
							INTERNALASSESSMENT			EXTERNALASSESSMENT					
			L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	HYDRAULICS	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
4.2	HYDRAULICS LAB	PROGRAM CORE (PRACTICAL)	-	-	02	0+1=1	-	60	60	-	-	40	3	40	100
4.3	ADVANCE SURVEYING	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
4.4	ADVANCE SURVEYING LAB	PROGRAM CORE (PRACTICAL)	-	-	04	0+2=2	-	60	60	-	-	40	3	40	100
4.5	THEORY OF STRUCTURE	PROGRAM CORE (THEORY)	02	01	-	3+0=3	40	-	40	60	3	-	-	60	100
4.6	DESIGN OF REINFORCED CEMENT CONCRETE STRUCTURES	PROGRAM CORE (THEORY)	02	01	-	3+0=3	40	-	40	60	3			60	100
4.7	REINFORCED CEMENT CONCRETE STRUCTURES DRAWING	PROGRAM CORE (PRACTICUM/PRACTICAL)	01	-	04	1+2=3		60	60	-	-	40	3	40	100
4.8	WATER RESOURCE ENGINEERING	PROGRAM CORE (THEORY)	02		-	2+0=2	40	-	40	60	3			60	100
4.9	PUBLIC HEALTH ENGINEERING	PROGRAM CORE (PRACTICUM/THEORY)	01	-	02	1+1=2		40	40	60	3	-	-	60	100
4.10	(Q) ESSENCE OF INDIAN KNOWLEDGE AND TRADITION	AUDIT COURSE	02	-	-	-	50*	-	50*	-	-	-	-	-	-
#STUDENTCENTEREDACTIVITIES			-	-	08	-	-	50	50	-	-	-	-	-	50
Total			**14**	**02**	**20**	**20**	**200**	**270**	**470**	**360**	**-**	**120**	**-**	**480**	**950**

Note -(Q) - It is compulsory to appear & to pass in examination, But marks will not be included for division and percentage of obtained marks.

Advance Skill Development:-

To fulfill the requirements for Advanced Skill Development, a minimum of 20 hours of skill certification is necessary. This certification must be obtained from a recognized national or international agency or institute. The assessment and certification process will be conducted by the respective agency or institute. Students must present their certificate to earn 02 credits for this subject.

** SUMMER INTERNSHIP (4-6 WEEKS) duration to be organized after fourth semester exam. Evaluation will be in fifth semester.

StudentCenteredActivitieswillcompriseofco-curricularactivitieslikeextensionlectures,games,hobbyclubse.g.photographyetc., seminars, declamationcontests,educationalfieldvisits,N.C.C.,NSS, library, CulturalActivitiesandself-studyetc. .

B. **COMPULSORY SUBJECT OF II- SEMESTER CIVIL AND ENVIRONMENTAL ENGINEERINGTO BE TAUGHT IN IV SEMESTER TO ITI PASSED STUDENTS OF TRADES ARE AS FOLLOWS :-**

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
2.1	*Mathematics-II	3	1	-	4+0=4	40	-	**40**	60	3	-	-	**60**	**100**
2.2	*AppliedPhysics-II	3	-	2	3+1=4	40	60	**100**	60	3	40	3	**100**	**200**
TOTAL		**6**	**1**	**2**	**8**	**80**	**60**	**140**	**120**	**-**	**40**	**-**	**160**	**300**

(*) It is compulsory to appear & to pass in examination From III Semester To VI Semester, But credit/marks will not be included for division and percentage of obtained marks.

(*) Four Semester (Two Years) of Extra Time will be given after diploma curriculum period (If Required) to pass the above paper (1.1 To 1.4 and 2.1To 2.2) examination (As Per G. O. No. 2221/16-Pra. Shi.-3-2009 Dated 28-08-2009) & Revised G.O. No. 2704/16-Pra.Shi.-3- 2013-46(8)/2002 Dated 09-01-2013 and B.T.E Order No. Pra.Shi.Pa/C.D.C./2022/872021 Dated 21.02.22

5th SEMESTER

Sr. No.	SUBJECTS	COURSE TYPE & CATEGORY	STUDYSCHEME Periods/Week			Credits	MARKSINEVALUATIONSCHEME								TotalMarksofInternal & External
							INTERNALASSESSMENT			EXTERNALASSESSMENT					
			L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
5.1	TRANSPORATION ENGG.	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
5.2	ESTIMATING COSTING AND VALUATION	PROGRAM CORE (PRACTICUM/THEORY)	01	-	04	1+2=3	20	20	40	60	3			60	100
5.3	GEOTECHNICAL ENGG.	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-		60	100
5.4	DESIGN OF STEEL STRUCTURE AND DRAWING	PROGRAM CORE (PRACTICUM/THEORY)	01	-	04	1+2=3	20	20	40	60	3	-	-	60	100
5.5	ENVIRONMENT MANAGEMENT	PROGRAM CORE (THEORY)	02	-	-	2+0=2	40	-	40	60	3	-	-	60	100
5.6	**OPEN ELECTIVE- 01** a) DISASTER MANAGEMENT b) PROJECT MANAGEMENT	OPEN ELECTIVE(THEORY)	02	-	-	2+0=2	50	-	50	-	-	-	-	-	NA
	OR *ADVANCE SKILL DEVELOPMENT: ADVANCED PLUMBING (TATA TECH.)	OPEN ELECTIVE (Certification Course)	-	-	-	-	-	-	-	-	-	-	-	-	NA
5.7	TRANSPORATION ENGG. LAB	PROGRAM CORE (PRACTICAL)	-	-	04	0+2=2	-	60	60	-	-	40	3	40	100
5.8	GEOTECHNICAL ENGG. LAB	PROGRAM CORE (PRACTICAL)	-	-	04	0+2=2	-	60	60	-	-	40	3	40	100
5.9	INDIAN CONSTITUTION (Q)	AUDIT COURSE	02	-	-	-	50	-	50	-	-	-	-	-	-
5.10	SUMMER INTERNSHIP** (4 -6 WEEKS)		-	-	-	2	-	60*	60*	-	-	40*	3	40*	100*
	#STUDENTCENTEREDACTIVITIES	-	-	-	08			50	50	-	-	-	-		50
Total			**12**	**0**	**24**	**20**	**210**	**220**	**430**	**300**		**120**		**420**	**850**

(Q) It is compulsory to appear and to pass the examination, but marks will not be included for percentage and division of obtained marks.

* Students will submit the certificate.

** Students will present a seminar/viva on their summer internship/ ADVANCE SKILL CERTIFICATION along with certificate, project and report.

6- STUDY AND EVALUATION SCHEME FOR DIPLOMA PROGRAMME IN CIVIL AND ENVIRONMENTALENGINEERING

6th SEMESTER

Sr. No.	SUBJECTS	COURSE TYPE & CATEGORY	STUDYSCHEME Periods/Week			Credits	MARKSINEVALUATIONSCHEME								TotalMarksof Internal & External
							INTERNALASSESSMENT			EXTERNALASSESSMENT					
			L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	**PROGRAM ELECTIVE-01** a) CONSTRUCTION MANAGEMENT b) ADVANCE CONSTRUCTION TECHNOLGY	PROGRAM CORE (THEORY)	03	01	-	4	40	-	40	60	3	-	-	60	100
6.2	ENTREPRENEURSHIP AND START-UP	PROGRAM CORE (THEORY)	02	-	-	2	40	-	40	60	3	-	-	60	100
6.3	**OPEN ELECTIVE-02** a) RENEWABLE ENERGY TECHNOLOGY b) ENERGY CONSERVATION AND AUDIT	PROGRAM CORE (THEORY)I	02	-	-	2	50	-	50	-	-	-	-	-	NA
	OR ADVANCE SKILL DEVELOPMENT	OPEN ELECTIVE (Certification Course)					-	-	-	-	-	-	-	-	NA
6.4	PROJECT	PROGRAM CORE (PRACTICAL)	04	-	16	12	-	240	240	-	-	160	3	160	400
#STUDENTCENTEREDACTIVITIES			-	-	08	-	-	50	50	-	-	-	-	-	50
Total			**11**	**01**	**24**	**20**	**160**	**150**	**310**	**240**		**150**		**390**	**650**

StudentCenteredActivitieswillcompriseofco-curricularactivitieslikeextensionlectures,games,hobbyclubse.g.photographyetc., seminars,declamationcontests,educationalfieldvisits,N.C.C.,NSS, library, CulturalActivitiesandself-studyetc

OR

SIXTH SEMESTER(INDUSTRIAL PATHWAY)

Sr. No.	SUBJECTS	Category & Course Type	STUDY SCHEME Periods/Week			Credits(C) (L+T)+P=C	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External	Assessment
							INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT						
			L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot		
6.1	Entrepreneurship and Start-ups (ONLINE Mode)	Humanities & Social Science (Theory)	-	-	-	2	-	-	-	100	03	-	-	100	100	Theory
6.2	Industrial Hands On Practice	Industrial Training	-	-	-	12	150*			200**					350	
6.3	Industrial Project	Industrial Training	-	-	-	4	50*			50**					100	
6.4	# Seminar	In House	-	-	-	2	-	100	100	-	-	-	-	-	100	
Total			-	-	-	**20**	-							-	650	

NOTE:

1. The Industrial training tenure should not be less than 14 Weeks.
2. Industry must be registered with MSME / Directorate of industries/Limited Organization/ State/Central Government establishments.
3. Monthly progress reports of Intern/ Trainee should be attested and forwarded by industrial supervisor (allotted to Intern/Trainee) during industrial Internship/Training.
4. The Industrial unit/organisation must evaluate students using the format provided by polytechnic in the form of marks.
5. The Industrial Hands on Practice, Industrial Project and seminar must be evaluated on the basis of the AICTE Internship Policy: Guidelines and procedures (Chapter -9 Procedures / format for organizing internship)

6. *"Entrepreneurship and Start-up"* course is also mandatory in Industrial internship/training mode. It will be conducted online mode by his/her polytechnic institute. After completing the online course, students must appear for exam conducted by the Board of Technical Education, Lucknow.

7. ***Evaluation by faculty mentor**
   The institute will depute one faculty member for mentoring at least 20-30 students undertaking apprenticeship training. Such mentors will monitor, guide and provide counselling to the students as and when required. Faculty mentor of the institute(s) may make a surprise visit to the internship/apprenticeship site to check the student's presence physically. (The Proforma of the evaluation is attached as the Annexure -1)

8. ** **Evaluation by industry** : The industry shall assess the candidates based on the following parameters attendance, discipline and punctuality, familiarity of tools and material, engineering skills, application of knowledge and problem-solving skills, comprehension and observation, professional ethics, safety and environmental consciousness, communication skills, supervisory skills and general conduct during the period (The Proforma of the evaluation is attached as the Annexure -2)

9. **# Evaluation through seminar presentation/Viva-Voce at the institute :** The student will give a seminar based on his training report, before an expert committee constituted by the concerned department as per norms of the institute. The evaluation will be based on the following criteria: