

# Part Time Diploma Programme in Instrumentation Engineering

### Semester - I

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles		Scheme of Studies (Hours/Week)			
	(200)			L	Т	P	Credit L+T+(P/2)	
1	Humanities	0000171(046)	Communication Skill-I	2	1	-	3	
2	Applied Science	0000172(014)	Applied Maths-I	2	1	-	3	
3	Applied Science	0000173(011)	Applied Chemistry	2	1	-	3	
4	Computer Science and Engineering	0000174(022)	Computer Fundamentals & Applications	2	-	-	2	
5	Applied Science	0000191(011)	Applied Chemistry (Lab)	-	-	2	1	
6	Computer Science and Engineering	0000192(022)	Computer Fundamentals & Applications (Lab)	-	-	4	2	
7	Electronics & Tele. Engineering	0000194(028)	Electronics Workshop Practice	-	-	2	1	
8	Humanities	0000195(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	2	1	
		08	03	10	16			

L-Lecture, T-Tutorial, P-Practical

Lecture (L) $\rightarrow$ CI Classroom Instruction (Includes different instructional Strategies i.e Lecture and others) Practical (P) $\rightarrow$ LI Laboratory Instruction (Includes practical performances in Laboratory ,workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & Self Learning (SL).



# Part Time Diploma Programme in Instrumentation Engineering

#### Semester - I

#### Scheme of Examination:

				Scheme of Examination					Total
S.No.	Board of Studies	Course	Course Titles		Theor	y	Prac	tical	Marks
D.11.0.	(BoS)	Code		ESE	СТ	TA	ESE	TA	
1	Humanities	0000171(046)	Communication Skill-I	70	20	30	-	-	120
2	Applied Science	0000172(014)	Applied Maths-I	70	20	30	-	-	120
3	Applied Science	0000173(011)	Applied Chemistry	70	20	30	-	-	120
4	Computer Science and Engineering	0000174(022)	Computer Fundamentals & Applications	70	20	30	-	-	120
5	Applied Science	0000191(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
6	Computer Science and Engineering	0000192(022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
7	Electronics & Telecommunication Engineering	0000194(028)	Electronics Workshop Practice (Lab)	-	-	-	30	70	100
8	Humanities	0000195(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	60	60
	Total				80	120	90	230	800

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

Note:-

- i) TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.
- ii) TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.
- iii) 85% attendance is essential in theory & Practical classes to appear in examination.



# Part Time Diploma Programme in Instrumentation Engineering

### Semester - II

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles		Scheme of Studies (Hours/Week)			
	(200)			L	Т	P	Credit L+T+(P/2)	
1	Humanities	0000271(046)	Communication Skill-II	2	1	-	3	
2	Applied Science	0000272(014)	Applied Maths-II	2	1	-	3	
3	Applied Science	0000273(015)	Applied Physics	2	1	-	3	
4	Electronics & Telecommunication Engineering	0000275(028)	Basic Electronics Engineering	2	1	-	3	
5	Applied Science	0000290(015)	Applied Physics (Lab)	-	-	2	1	
6	Electronics & Telecommunication Engineering	0000292(028)	Basic Electronics Engineering (Lab)	-	-	4	2	
7	Humanities	0000293(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	2	1	
	Total					08	16	

**L**-Lecture, **T**-Tutorial, **P**-Practical

 $Lecture \ (L) {\color{red} \rightarrow} CI \ Classroom \ Instruction \ (Includes \ different \ instructional \ Strategies \ i.e. \ Lecture \ and \ others)$ 

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory ,workshop, field or other locations using different instructional strategies).

Tutorial (T) $\rightarrow$ Includes sessional work (SW) (assignment, seminar, mini project etc), & Self Learning (SL).



# Part Time Diploma Programme in Instrumentation Engineering

### Semester - II

#### **Scheme of Examination:**

O M-	Doord of Charling	0	Common Million	s	cheme	of Exa	minatio	n	Total
S.No.	Board of Studies (BoS)	Course Code	Course Titles		Theory			tical	Marks
	• •			ESE	СТ	TA	ESE	TA	
1	Humanities	0000271(046)	Communication Skill-II	70	20	30	-	-	120
2	Applied Science	0000272(014)	Applied Maths-II	70	20	30	-	-	120
3	Applied Science	0000273(015)	Applied Physics	70	20	30	-	-	120
4	Electronics & Telecommunication Engineering	0000275(028)	Basic Electronics Engineering	70	50	50	-	-	170
5	Applied Science	0000290(015)	Applied Physics (Lab)	-	-	-	30	50	80
6	Electronics & Telecommunication Engineering	0000292(028)	Basic Electronics Engineering (Lab)	-	-	-	30	70	100
8	Humanities	0000293(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	70	70
	Total				110	140	60	190	780

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

- Note:- i) TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.
  - ii) TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.
  - iii) 85% attendance is essential in theory & Practical classes to appear in examination.



### Part Time Diploma Programme in Instrumentation Engineering

#### Semester - III

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
	(202)			L	Т	P	Credit L+T+(P/2)
1	Electrical Engineering	0034371(024)	Fundamental of Electrical Machines	2	1	-	3
2	Civil Engineering	0000373(020)	Environmental Engineering & Sustainable Development	2	1	-	3
3	E & TC Engineering	0034372(028)	Digital Electronics	2	1	-	3
4	Electrical Engineering	0034374(024)	Basic Electrical and Network Theory	2	1	1	3
5	Electrical Engineering	0034390(024)	Fundamental of Electrical Machines (Lab)	-	-	2	1
6	E & TC Engineering	0034391(028)	Digital Electronics (Lab)	-	-	2	1
7	Electrical Engineering	0034392(024)	Basic Electrical and Network Theory (Lab)	-	-	2	1
	Total					06	15

**L**-Lecture, **T**-Tutorial, **P**-Practical

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory ,workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & Self Learning (SL).



# Part Time Diploma Programme in Instrumentation Engineering Semester – III

#### Scheme of Examination:

G.N.	D 1 . CG/ 11			Sc	cheme	of Exa	minati	on	Total
S.No.	Board of Studies (BoS)	Course Code	Course	Theory			Practical		Marks
	, ,			ESE	СТ	TA	ESE	TA	
1	Electrical Engineering	0034371(024)	Fundamental of Electrical Machines	70	20	30	-	-	120
2	Civil Engineering	0000373(020)	Environmental Engineering & Sustainable Development	70	50	30	-	-	150
3	E & TC Engineering	0034372(028)	Digital Electronics	70	20	30	-	-	120
4	Electrical Engineering	0034374(024)	Basic Electrical and Network Theory	70	20	30	-	ı	120
5	Electrical Engineering	0034390(024)	Fundamental of Electrical Machines (Lab)	-	-	-	30	50	80
6	E & TC Engineering	0034391(028)	Digital Electronics (Lab)	-	-	-	30	50	80
7	Electrical Engineering	0034392(024)	Basic Electrical and Network Theory (Lab)	-	-	-	30	50	80
	Total			280	110	120	90	150	750

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

**Note:-** i) TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.

- ii) TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.
- iii) 85% attendance is essential in theory & Practical classes to appear in examination.



# Part Time Diploma Programme in Instrumentation Engineering

### Semester - IV

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
	(200)			L	Т	P	Credit L+T+(P/2)
1	E & TC Engineering	0034471(028)	Microcontroller and Its Application	3	-	-	3
2	Instrumentation Engineering	0034473(034)	Industrial Instrumentation and Sensors	2	1	-	3
3	Electrical Engineering	0024472(024)	Electrical and Electronics Measurements	2	1	-	3
4	Computer Science and Engineering	0034474(022)	Programming in 'C'	2	1	-	3
5	E & TC Engineering	0034490(028)	Microcontroller and Its Application (Lab)	-	-	2	1
6	Instrumentation Engineering	0034491(034)	Industrial Instrumentation and Sensors (Lab)	-	-	2	1
7	Electrical Engineering	0034492(024)	Electrical and Electronics Measurements (Lab)	-	_	2	1
8	Computer Science and Engineering	0034493(022)	Programming in 'C' (Lab)	-	_	4	2
	Total					10	17

**L**-Lecture, **T**-Tutorial, **P**-Practical

Lecture (L)→CI Classroom Instruction (Includes different instructional Strategies i.e Lecture and others)

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory ,workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & Self Learning (SL).



# Part Time Diploma Programme in Instrumentation Engineering

### Semester - IV

#### Scheme of Examination:

C No	Board of Studies	Course	Course Titles	S	cheme	of Exa	minatio	n	Total
S.No.	(BoS)	Code	Course littles		Theor	у	Practical		Marks
				ESE	СТ	TA	ESE	TA	
1	E & TC Engineering	0034471(028)	Microcontroller and Its Application	70	20	30	-	-	120
2	Instrumentation Engineering	0034473(034)	Industrial Instrumentation and Sensors	70	20	30	-	-	120
3	Electrical Engineering	0024472(024)	Electrical and Electronics Measurements	70	20	30	-	-	120
4	Computer Science and Engineering	0034474(022)	Programming in 'C'	70	50	50	-	-	170
5	E & TC Engineering	0034490(028)	Microcontroller and Its Application (Lab)	-	-	-	30	50	80
6	Instrumentation Engineering	0034491(034)	Industrial Instrumentation and Sensors (Lab)	-	-	-	30	50	80
7	Electrical Engineering	0034492(024)	Electrical and Electronics Measurements (Lab)	-	-	-	30	50	80
8	Computer Science and Engineering	0034493(022)	Programming in 'C' (Lab)	-	-	-	30	70	100
	Total					140	120	220	870

**ESE:** End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

Note:- i) TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.

ii) TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.

iii) 85% attendance is essential in theory & Practical classes to appear in examination.



# Part Time Diploma Programme in Instrumentation Engineering Semester – V

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
	, ,			L	T	P	Credit L+T+(P/2)
1	Instrumentation Engg.	0034571(034)	Analog Circuits & Application	2	1	-	3
2	Instrumentation Engg.	0034572(034)	Analytical Instrumentation	2	1	-	3
3	Instrumentation Engg.	0034573(034)	Basic Control System	2	1	-	3
4	Instrumentation Engg.	0034574(034)	Bio Medical Instrumentation	2	1	-	3
5	Instrumentation Engg.	0034591(034)	Analog Circuits & Application (Lab)	-	-	2	1
6	Instrumentation Engg.	0034592(034)	Analytical Instrumentation (Lab)	-	-	2	1
7	Instrumentation Engg.	0034593(034)	Basic Control System (Lab)	-	-	2	1
8	Humanities	-	Indian Constitution (Non Credit Subject)	-	-	2	-
9	Humanities	-	Library & Self Learning	-	-	4	-
	Total				04	12	15

**L**-Lecture, **T**-Tutorial, **P**-Practical

 $Lecture \ (L) \rightarrow CI \ Classroom \ Instruction \ (Includes \ different \ instructional \ Strategies \ i.e \ Lecture \ and \ others)$ 

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory ,workshop, field or other locations using different instructional strategies).

 $\label{eq:continuous} \mbox{Tutorial (T)} \mbox{$\rightarrow$} \mbox{Includes sessional work (SW) (assignment, seminar, mini project etc), \& Self Learning (SL).$ 



# Part Time Diploma Programme in Instrumentation Engineering Semester – V

#### Scheme of Examination:

G 37	B 1 . CC. 1:	<b>Q</b>	Course Titles	Sc	heme	of Exa	minatio	on	Total
S.No.	Board of Studies (BoS)	Course Code	Course Titles	Theory			Practical		Marks
	( /			ESE	СТ	TA	ESE	TA	
1	Instrumentation Engg.	0034571(034)	Analog Circuits & Application	70	20	30	-	ı	120
2	Instrumentation Engg.	0034572(034)	Analytical Instrumentation	70	20	30	1	-	120
3	Instrumentation Engg.	0034573(034)	Basic Control System	70	20	30	-	-	120
4	Instrumentation Engg.	0034574(034)	Bio Medical Instrumentation	70	20	30	-	-	120
5	Instrumentation Engg.	0034591(034)	Analog Circuits & Application (Lab)	-	-	-	30	50	80
6	Instrumentation Engg.	0034592(034)	Analytical Instrumentation (Lab)	-	-	-	30	50	80
7	Instrumentation Engg.	0034593(034)	Basic Control System (Lab)	-	-	-	30	50	80
8	Humanities	-	Indian Constitution (Non Credit Subject)	-	-	-	-	-	-
9	Humanities	-	Library & Self Learning	-	-	-	-	-	-
	Total			280	80	120	90	150	720

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

Note: i) TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.

ii) TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.

iii) 85% attendance is essential in theory & Practical classes to appear in examination.



### Part Time Diploma Programme in Instrumentation Engineering

### Semester - VI

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles		Scheme of Studies (Hours/Week)		
	, ,			L	Т	P	Credit L+T+(P/2)
1	Instrumentation Engineering	0034671(034)	Principles of Data Communication & Networking	3	1	-	4
2	Electrical Engineering	0024673(024)	Power Electronics	3	1	-	4
3	Instrumentation Engineering	0034672(034)	Industrial Safety Equipment and Instrument	3	1	-	4
4	Instrumentation Engineering	0034691(034)	Principles of Data Communication & Networking (Lab)	-	-	2	1
5	Electrical Engineering	0034692(024)	Power Electronics (Lab)	-	-	2	1
6	Instrumentation Engineering	0034693(034)	Instrumentation Engineering Drawing (Lab)	-	-	2	1
7	Humanities	-	Library & Self Learning	-	-	6	-
	Total					12	15

L-Lecture, T-Tutorial, P-Practical

 $Lecture \ (L) \rightarrow CI \ Classroom \ Instruction \ (Includes \ different \ instructional \ Strategies \ i.e \ Lecture \ and \ others)$ 

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory, workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & Self Learning (SL).



### Part Time Diploma Programme in Instrumentation Engineering

#### Semester - VI

#### Scheme of Examination:

~	- 1 00· 11			S	chem	e of Exa	aminat	ion	
S.No.	Board of Studies (BoS)	Course Code	Course Titles		Theor	y	Practical (PRA+PDA+Viva)		Total Marks
				ESE	СТ	TA	ESE	TA	
1	Instrumentation Engineering	0034671(034)	Principles of Data Communication & Networking	70	20	30	-	-	120
2	Electrical Engineering	0024673(024)	Power Electronics	70	20	30	-	-	120
3	Instrumentation Engineering	0034672(034)	Industrial Safety Equipment and Instrument	70	20	30	-	-	120
4	Instrumentation Engineering	0034691(034)	Principles of Data Communication & Networking (lab)	-	ı	ı	50	70	120
5	Electrical Engineering	0034692(024)	Power Electronics (Lab)	-	-	-	40	50	90
6	Instrumentation Engineering	0034693(034)	Instrumentation Engineering Drawing (Lab)	-	-	-	30	50	80
7	Humanities	-	Library & Self Learning	-	-	-	-	-	-
	Total			210	60	90	120	170	650

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

Note:- i. TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30% weightage of total respectively

ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% weightage of total respectively.

iii. 85 % attendance is essential in theory & practical classes to appear in examination.



### Part Time Diploma Programme in Instrumentation Engineering

#### Semester - VII

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	т	P	Credit L+T+(P/2)	
1	E&TC Engineering	0034771(028)	Optical Fiber Communications	3	1	-	4	
2	Instrumentation Engineering	0034772(034)	Process Instrumentation	3	1	-	4	
3	Mechanical Engineering	0000773(037)	Entrepreneurship Development and Management	2	1	-	3	
4	E&TC Engineering	0034791(028)	Optical Fiber Communications (Lab)	-	-	2	1	
5	Instrumentation Engineering	0034792(034)	Process Instrumentation (Lab)	_	_	2	1	
6	Humanities		Library & Self Learning	-	-	6	-	
7	Humanities		Co-Curricular activities	_	-	3	-	
	Total					13	13	

L-Lecture, T-Tutorial, P-Practical

Lecture (L)  $\rightarrow$  CI Classroom Instruction (Includes different instructional strategies i.e lecture and others).

Practical (P)→LI Laboratory Instruction (Includes practical performances in laboratory, workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & self learning (SL).



### Part Time Diploma Programme in Instrumentation Engineering

#### Semester - VII

#### **Scheme of Examination:**

	Board of Studies (BoS)	Course Code	Course Titles	S					
S.No.				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	E&TC Engineering	0034771(028)	Optical Fiber Communications	70	20	30	-	-	120
2	Instrumentation Engineering	0034772(034)	Process Instrumentation	70	20	30	-	-	120
3	Mechanical Engineering	0000773(037)	Entrepreneurship Development and Management	70	20	30	-	-	120
4	E&TC Engineering	0034791(028)	Optical Fiber Communications (Lab)	-	-	-	50	70	120
5	Instrumentation Engineering	0034792(034)	Process Instrumentation (Lab)	-	-	ı	50	70	120
6	Humanities		Library & Self Learning	-	-	ı	-	-	-
7	Humanities		Co-Curricular activities	-	ı	ı	-	-	-
	Total			210	60	90	100	140	600

ESE: End Semester Exam,

CT: Class Test, TA: Teachers Assessment

- Note:- i. TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30% weightage of total respectively
  - ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% weightage of total respectively.
  - iii. 85% attendance is essential in theory & practical classes to appear in examination.



### Part Time Diploma Programme in Instrumentation Engineering

### Semester - VIII

#### **Scheme of Studies:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
	(203)	Couc		L	T	P	Credit L+T+(P/2)	
1	Instrumentation Engineering	0034871(034)	Distributed Control Systems	3	1	ı	4	
2	Electrical Engineering	0034872(024)	Wind, Solar and Hydro Power Technologies	2	1	ı	3	
3	Instrumentation Engineering	0034891(034)	Distributed Control Systems (Lab)	-	-	2	1	
4	E&TC Engineering	0034892(028)	Electronics Simulation (Lab)	-	-	4	2	
5	Instrumentation Engineering	0034893(034)	Major Project	-	-	4	2	
6	Humanities		Library & Self Learning	-	-	7	-	
	Total				02	17	12	

**L**-Lecture, **T**-Tutorial, **P**-Practical

Lecture (L) $\rightarrow$ CI Classroom Instruction (Includes different instructional strategies i.e lecture and others).

Practical (P)→LI Laboratory Instruction (Includes practical performances in laboratory, workshop, field or other locations using different instructional strategies).

Tutorial (T)→Includes sessional work (SW) (assignment, seminar, mini project etc), & self learning (SL).



### Part Time Diploma Programme in Instrumentation Engineering

#### Semester - VIII

#### **Scheme of Examination:**

S.No.	Board of Studies (BoS)	Course Code	Course Titles	S					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Instrumentation Engineering	0034871(034)	Distributed Control Systems	70	20	30	1	-	120
2	Electrical Engineering	0034872(024)	Wind, Solar and Hydro Power Technologies	70	20	30	-	-	120
3	Instrumentation Engineering	0034891(034)	Distributed Control Systems (Lab)	-	-	-	50	70	120
4	E&TC Engineering	0034892(028)	Electronics Simulation (Lab)	-	-	-	30	50	80
5	Instrumentation Engineering	0034893(034)	Major Project	-	-	-	100	100	200
6	Humanities		Library & Self Learning	-	-	-	-	-	-
	Total			140	04	60	180	220	640

**ESE**: End Semester Exam,

CT: Class Test,

**TA:** Teachers Assessment

- Note:- i. TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30% weightage of total respectively
  - ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% weightage of total respectively.
  - iii. 85 % attendance is essential in theory & practical classes to appear in examination.