



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Civil/Electrical/EEE/Mining & Mine Surveying (Group-IA)

Semester-I

Scheme of Studies:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000171(046)	Communication Skills-I	2	-	1	3
2	Applied Science	2000172(014)	Applied Maths-I	2	-	1	3
3	Civil Engineering	2000175(020)	Environmental Engineering & Sustainable Development	2	-	1	3
4	Applied Science	2000174(015)	Applied Physics	2	-	1	3
5	Mechanical Engineering	2000179(037)	Basic Non-Conventional Energy Sources	1	-	1	2
6	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	2	-	0	2
7	Applied Science	2000190(015)	Applied Physics (Lab)	-	2	-	1
8	Mechanical Engineering	2000191(037)	Basic Non-Conventional Energy Sources (Lab)	-	2	-	1
9	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	4	-	2
10	Humanities	2000195(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	2	-	1
11	-	-	Library	-	2	-	-
12	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
Total				11	14	05	21

L - Lecture, T - Tutorial, P – Practical

Legend:

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)

Note: Leftover periods/week (6 periods/week) shall be utilized for Self Learning (SL) purpose.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Civil/Electrical/EEE/Mining & Mine Surveying (Group-IA)

Semester-I

Session-2020

Scheme of Examinations:

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Humanities	2000171(046)	Communication Skills-I	70	20	30	-	-	120
2	Applied Science	2000172(014)	Applied Maths-I	70	20	30	-	-	120
3	Civil Engineering	2000175(020)	Environmental Engineering & Sustainable Development	70	50	30	-	-	150
4	Applied Science	2000174(015)	Applied Physics	70	20	30	-	-	120
5	Mechanical Engineering	2000179(037)	Basic Non-Conventional Energy Sources	-	-	70	-	-	70
6	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	70	20	30	-	-	120
7	Applied Science	2000190(015)	Applied Physics (Lab)	-	-	-	30	50	80
8	Mechanical Engineering	2000191(037)	Basic Non-Conventional Energy Sources (Lab)	-	-	-	30	50	80
9	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
10	Humanities	2000195(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	60	60
Total				350	130	220	90	210	1000

ESE: End of Semester Exam, CT: Class Test, TA: Teachers Assessment

Legend: PRA: Process Assessment, PDA: Product Assessment

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



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Civil/Electrical/EEE/Mining & Mine Surveying (Group-IA)

Semester-II

Session-2020

Scheme of Studies:

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000271(046)	Communication Skills-II	2	-	1	3
2	Applied Science	2000272(014)	Applied Maths-II	2	-	1	3
3	Mechanical Engineering	2000275(037)	Applied Mechanics	2	-	1	3
4	Applied Science	2000278(011)	Applied Chemistry	2	-	1	3
5	Mechanical Engineering	2000277(037)	Engineering Drawing	2	-	1	3
6	Mechanical Engineering	2000276(037)	WorkShop Practice (Theory)	1	-	-	1
7	Mechanical Engineering	2000290(037)	Applied Mechanics (Lab)	-	2	-	1
8	Applied Science	2000291(011)	Applied Chemistry (Lab)	-	2	-	1
9	Mechanical Engineering	2000292(037)	Engineering Drawing (Practical)	-	2	-	1
10	Mechanical Engineering	2000294(037)	WorkShop Practice (Practical)	-	4	-	2
11	Humanities	2000293(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	2	-	1
12	-	-	Library	-	2	-	-
13	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
Total				11	16	05	22

L - Lecture, T - Tutorial, P – Practical

Legend:

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)

Note: Leftover periods/week (4 periods/week) shall be utilized for Self Learning (SL) purpose.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Civil/Electrical/EEE/Mining & Mine Surveying (Group-IA)

Semester-II

Scheme of Examination:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Humanities	2000271(046)	Communication Skills-II	70	20	30	-	-	120
2	Applied Science	2000272(014)	Applied Maths-II	70	20	30	-	-	120
3	Mechanical Engineering	2000275(037)	Applied Mechanics	70	20	30	-	-	120
4	Applied Science	2000278(011)	Applied Chemistry	70	20	30	-	-	120
5	Mechanical Engineering	2000277(037)	Engineering Drawing	70	20	30	-	-	120
6	Mechanical Engineering	2000276(037)	WorkShop Practice (Theory)	-	-	30	-	-	30
7	Mechanical Engineering	2000290(037)	Applied Mechanics (Lab)	-	-	-	30	50	80
8	Applied Science	2000291(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
9	Mechanical Engineering	2000292(037)	Engineering Drawing (Practical)	-	-	-	30	50	80
10	Mechanical Engineering	2000294(037)	WorkShop Practice (Practical)	-	-	-	50	30	80
11	Humanities	2000293(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	50	50
Total				350	100	180	140	230	1000

ESE: End of Semester Exam, CT: Class Test, TA: Teachers Assessment

Legend: PRA: Process Assessment, PDA: Product 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.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 3rd Sem

Scheme of Studies:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Electrical Engineering	2024371(024)	Electrical Circuits	2	-	1	3
2	Electrical Engineering	2024372(024)	Electrical and Electronic Measurements	2	-	1	3
3	Electrical Engineering	2024373(024)	DC Machines and Transformers	2	-	1	3
4	Electrical Engineering	2024374(024)	Electrical Drawing and CAD	3	-	0	3
5	Electrical & Electronics Engineering	2025375(025)	Basic Electronics	2	-	1	3
6	Electrical Engineering	2025361(024)	Electrical Circuits (Lab)	-	2	-	1
7	Electrical Engineering	2025362(024)	Electrical and Electronic Measurements (Lab)	-	2	-	1
8	Electrical Engineering	2025363(024)	DC Machines and Transformers (Lab)	-	2	-	1
9	Electrical & Electronics Engineering	2025364(025)	Basic Electronics (Lab)	-	2	-	1
10	Electrical Engineering	2024365(024)	Electrical Workshop Practice-I (Lab)	-	2	-	1
11	Humanities	-	Health, Hygiene and Yoga (Non-Credit Subject)	-	2	-	0
12			Library	-	2	-	0
Total				11	14	04	20
Total				29			

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

Lecture (L)→ CL 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)



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 3rd Sem

Scheme of Examination:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Electrical Engineering	2024371 (024)	Electrical Circuits	70	20	30	-	-	120
2	Electrical Engineering	2024372 (024)	Electrical and Electronic Measurements	70	20	30	-	-	120
3	Electrical Engineering	2024373 (024)	DC Machines and Transformers	70	20	30	-	-	120
4	Electrical Engineering	2024374 (024)	Electrical Drawing and CAD	70	20	30	-	-	120
5	Electrical & Electronics Engineering	2025375 (025)	Basic Electronics	70	20	30	-	-	120
6	Electrical Engineering	2025361 (024)	Electrical Circuits (Lab)	-	-	-	30	50	80
7	Electrical Engineering	2025362 (024)	Electrical and Electronic Measurements (Lab)	-	-	-	30	50	80
8	Electrical Engineering	2025363 (024)	DC Machines and Transformers (Lab)	-	-	-	30	50	80
9	Electrical & Electronics Engineering	2025364 (025)	Basic Electronics (Lab)	-	-	-	30	50	80
10	Electrical Engineering	2024365 (024)	Electrical Workshop Practice-I (Lab)				30	50	80
11	Humanities	-	Health, Hygiene and Yoga (Non-Credit Subject)	-	-	-	-	-	-
Total				350	100	150	150	250	1000

ESE: End Semester Exam

CT: Class Test

TA: Teachers Assessment

PRA: Process Assessment, **PDA:** Product 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.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 4th Sem

Scheme of Studies :

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Electrical & Electronics Engg.	2025471(025)	Digital Electronics	2	-	1	3
2	Electrical Engg.	2024472(024)	AC Machines	2	-	1	3
3	Computer Science & Engineering	2025473(022)	Computer Programming and Basic Networking	3	-	0	3
4	Electrical Engineering	2024474(024)	Electrical Power Generation, Transmission & Distribution	2	-	1	3
5	Electrical Engg / Electrical & Electronics Engg.	2024475(024) / 2025476(025)	Electrical Estimating and Costing* / Analog Electronics**	3	-	0	3
6	Electrical & Electronics Engg.	2025461(025)	Digital Electronics (Lab)	-	2	-	1
7	Electrical Engg.	2024462(024)	AC Machines (Lab)	-	2	-	1
8	Computer Science & Engineering	2025463(022)	Computer Programming and Basic Networking (Lab)	-	2	-	1
9	Electrical Engg.	2024464(024)	Electrical Power Generation, Transmission & Distribution (Lab)	-	2	-	1
10	Electrical Engg. / Electrical & Electronics Engg.	2024465(024) / 2025466(025)	Electrical Workshop Practice-II (Lab*) / Analog Electronics (Lab**)	-	2	-	1
11	-	-	Indian Constitution (Non Credit Subject)	-	2	-	0
Total				12	12	03	20
Total				27			

*Subject applicable for Electrical Branch

** Subject applicable for Electrical & Electronic Branch

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

Lecture (L)→ CL 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)

Note: Summer Internship (Industrial Training) of 4 weeks will be carried out in summer vacation after completion of 4th sem and evaluation will be done in 5th sem.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 4th Sem

Scheme of Examination:

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Electrical & Electronics Engg.	2025471(025)	Digital Electronics	70	20	30	-	-	120
2	Electrical Engg.	2024472(024)	AC Machines	70	20	30	-	-	120
3	Computer Science & Engineering	2025473(022)	Computer Programming and Basic Networking	70	20	30	-	-	120
4	Electrical Engg. Engineering	2024474(024)	Electrical Power Generation, Transmission & Distribution	70	20	30	-	-	120
5	Electrical Engg / Electrical & Electronics Engg.	2024475(024) / 2025476(025)	Electrical Estimating and Costing* / Analog Electronics**	70	20	30	-	-	120
6	Electrical & Electronics Engg.	2025461(025)	Digital Electronics (Lab)	-	-	-	30	50	80
7	Electrical Engg.	2024462(024)	AC Machines (Lab)	-	-	-	30	50	80
8	Computer Science & engineering	2025463(022)	Computer Programming and Basic Networking (Lab)	-	-	-	30	50	80
9	Electrical Engg.	2024464(024)	Electrical Power Generation, Transmission & Distribution (Lab)	-	-	-	30	50	80
10	Electrical Engg. / Electrical & Electronics Engg.	2024465(024) / 2025466(025)	Electrical Workshop Practice-II (Lab*) / Analog Electronics (Lab**)	-	-	-	30	50	80
11	-	-	Indian Constitution (Non Credit Subject)	-	-	-	-	-	-
Total				350	100	150	150	250	1000

*Subject applicable for Electrical Branch

** Subject applicable for Electrical & Electronic Branch

ESE: End of semester exam

CT: Class Test

TA: Teachers Assessment

PRA: Process Assessment, PDA: Product 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.

Note: Summer Internship (Industrial Training) of 4 weeks will be carried out in summer vacation after completion of 4th semester and evaluation will be done in 5th sem.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 5

Session-2020

Scheme of Studies:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	P	T	SL	Credit L+T+(P/2)
1.	Electrical Engineering	2024571 (024)	Power Electronics	3	-	1	1	4
2.	Electrical Engineering	2024572 (024)	Power System Operation and Protection	3	-	1	1	4
3.	Electrical & Electronics Engineering	2024573 (025)	Instrumentation and Process Control	2	-	1	1	3
4.	Electrical & Electronics Engineering	2025574 (025)	Microprocessor and Micro Controller	2	-	1	1	3
5.	Electrical & Electronics Engineering	2025561 (025)	Electrical and Electronics Simulation (Lab)	-	4	-	2	2
6.	Electrical Engineering	2025562 (024)	Power Electronics (Lab)	-	2	-	-	1
7.	Electrical Engineering	2025563 (024)	Power System Operation and Protection (Lab)	-	2	-	-	1
8.	Electrical & Electronics Engineering	2025564 (025)	Instrumentation and Process Control (Lab)	-	2	-	-	1
9.	Electrical & Electronics Engineering	2025565 (025)	Microprocessor and Micro Controller (Lab)	-	2	-	-	1
10.	Electrical Engineering	2025566 (024)	Industrial Training	-	2	-	2	1
Total				10	14	04	08	21
Total				36				

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

Lecture (L) → CL 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)



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 5

Scheme of Examination:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1.	Electrical Engineering	2024571 (024)	Power Electronics	70	20	30	-	-	120
2.	Electrical Engineering	2024572 (024)	Power System Operation and Protection	70	20	30	-	-	120
3.	Electrical & Electronics Engineering	2024573 (025)	Instrumentation and Process Control	70	20	30	-	-	120
4.	Electrical & Electronics Engineering	2025574 (025)	Microprocessor and Micro Controller	70	20	30	-	-	120
5.	Electrical & Electronics Engineering	2025561 (025)	Electrical and Electronics Simulation (Lab)	-	-	-	40*	50	90
6.	Electrical Engineering	2025562 (024)	Power Electronics (Lab)	-	-	-	40	50	90
7.	Electrical Engineering	2025563 (024)	Power System Operation and Protection (Lab)	-	-	-	40	50	90
8.	Electrical & Electronics Engineering	2025564 (025)	Instrumentation and Process Control (Lab)	-	-	-	40	50	90
9.	Electrical & Electronics Engineering	2025565 (025)	Microprocessor and Micro Controller (Lab)	-	-	-	40	50	90
10.	Electrical Engineering	2025566 (024)	Industrial Training	-	-	-	30	40	70
Total				280	80	120	230	290	1000

ESE: End Semester Exam, **CT:** Class Test, **TA:** Teachers Assessment,
PRA: Process Assessment, **PDA:** Product 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.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 6

Scheme of Studies:

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	P	T	SL	Credit L+T+(P/2)
1.	Electrical Engineering	2024671(024)	Utilization of Electrical Energy and Traction	3	-	1	1	4
2.	Electrical & Electronics Engineering	2025672(025)	Principles of Communication	3	-	1	1	4
3.	Mechanical Engineering	2000673(037)	Entrepreneurship Development and Management	2		1	1	3
4.	Electrical Engineering	Elective (Any One)		2	-	1	1	3
		2024681(024)	Industrial Automation					
		2024682(024)	Energy Conservation & Energy Audit					
5.	Electrical Engineering	2025661(024)	Utilization of Electrical Energy and Traction (Lab)	-	2	-	1	1
6.	Electrical & Electronics Engineering	2025662(025)	Principles of Communication (Lab)	-	2	-	1	1
7.	Electrical Engineering	Elective (Any One)		-	2	-	1	1
		2025691(024)	Industrial Automation (Lab)					
		2025692(024)	Energy Conservation & Energy Audit (Lab)					
8.	Electrical Engineering	2025663(024)	Major Project	-	3	-	2	2
Total				10	09	04	09	19
Total				32				

L-Lecture,

T-Tutorial,

P-Practical,

Lecture (L) → CL 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)



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Electrical & Electronics Engineering

Semester – 6

Scheme of Examination:

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1.	Electrical Engineering	2024671(024)	Utilization of Electrical Energy and Traction	70	20	30	-	-	120
2.	Electrical & Electronics Engineering	2025672(025)	Principles of Communication	70	20	30	-	-	120
3.	Mechanical Engineering	2000673(037)	Entrepreneurship Development and Management	70	20	30	-	-	120
4	Electrical Engineering	Elective (Any One)		70	20	30	-	-	120
		2024681(024)	Industrial Automation						
		2024682(024)	Energy Conservation & Energy Audit						
5.	Electrical Engineering	2025661(024)	Utilization of Electrical Energy And Traction (Lab)	-	-	-	40	60	100
6.	Electrical & Electronics Engineering	2025662(025)	Principles of Communication (Lab)	-	-	-	40	60	100
7.	Electrical Engineering	Elective (Any One)		-	-	-	40	60	100
		2025691(024)	Industrial Automation (Lab)						
		2025692(024)	Energy Conservation & Energy Audit (Lab)						
8.	Electrical Engineering	2025663(024)	Major Project	-	-	-	100	120	220
Total				280	80	120	220	300	1000

ESE: End Semester Exam,

CT: Class Test,

TA: Teachers Assessment,

PRA: Process Assessment,

PDA: Product 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.