Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

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 (C) 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	Mechanical Engineering	2000173(037)	Applied Mechanics	2	-	1	3
4	Applied Science	2000178(011)	Applied Chemistry	2	-	1	3
5	Mechanical Engineering	2000177(037)	Engineering Drawing	2	-	1	3
6	Mechanical Engineering	2000180(037)	Workshop Practice (Theory)	1	-	-	1
7	Mechanical Engineering	2000190(037)	Applied Mechanics (Lab)	-	2	-	1
8	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	2	-	1
9	Mechanical Engineering	2000192(037)	Engineering Drawing (Practical)	-	2	-	1
10	Mechanical Engineering	2000193(037)	Workshop Practice (Practical)	-	4	-	2
11	Humanities	2000194(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

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 Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

Semester-I

Scheme of Examinations: **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	2000171(046)	Communication Skills-I	70	20	30	-	-	120
2	Applied Science	2000172(014)	Applied Maths-I	70	20	30	-	-	120
3	Mechanical Engineering	2000173(037)	Applied Mechanics	70	20	30	-	-	120
4	Applied Science	2000178(011)	Applied Chemistry	70	20	30	-	-	120
5	Mechanical Engineering	2000177(037)	Engineering Drawing	70	20	30	-	-	120
6	Mechanical Engineering	2000180(037)	Workshop Practice (Theory)	-	-	30	-	-	30
7	Mechanical Engineering	2000190(037)	Applied Mechanics (Lab)	-	-	-	30	50	80
8	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
9	Mechanical Engineering	2000192(037)	Engineering Drawing (Practical)	-	-	-	30	50	80
10	Mechanical Engineering	2000193(037)	Workshop Practice (Practical)	-	-	-	50	30	80
11	Humanities	2000194(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	50	50
Total				**350**	**100**	**180**	**140**	**230**	**1000**

ESE : End Semester Examination, 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 each theory and practical subjects to appear in examination.

Legend: - PRA: Process Assessment, PDA: Product Assessment

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

Semester-II

Scheme of Studies: **Session-2020**

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit (C) 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	Civil Engineering	2000273 (020)	Environmental Engineering & Sustainable Development	2	-	1	3
4	Applied Science	2000274 (015)	Applied Physics	2	-	1	3
5	Mechanical Engineering	2000279 (037)	Basic Non-Conventional Energy Sources	1	-	1	2
6	Computer Science and Engineering	2000276 (022)	Computer Fundamentals & Applications	2	-	-	2
7	Applied Science	2000290 (015)	Applied Physics (Lab)	-	2	-	1
8	Mechanical Engineering	2000291 (037)	Basic Non-Conventional Energy Sources (Lab)	-	2	-	1
9	Computer Science and Engineering	2000292 (022)	Computer Fundamentals & Applications (Lab)	-	4	-	2
10	Humanities	2000294 (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

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 Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

Semester-II

Session-2020

Scheme of Examination:

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	Civil Engineering	2000273 (020)	Environmental Engineering & Sustainable Development	70	50	30	-	-	150
4	Applied Science	2000274 (015)	Applied Physics	70	20	30	-	-	120
5	Mechanical Engineering	2000279 (037)	Basic Non-Conventional Energy Sources	-	-	70	-	-	70
6	Computer Science and Engineering	2000276 (022)	Computer Fundamentals & Applications	70	20	30	-	-	120
7	Applied Science	2000290 (015)	Applied Physics (Lab)	-	-	-	30	50	80
8	Mechanical Engineering	2000291 (037)	Basic Non-Conventional Energy Sources (Lab)	-	-	-	30	50	80
9	Computer Science and Engineering	2000292 (022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
10	Humanities	2000294 (046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	60	60
Total				**350**	**130**	**220**	**90**	**210**	**1000**

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 each theory and practical subjects to appear in examination.

Legend: - PRA: Process Assessment, PDA: Product Assessment.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester - III

Scheme of Studies: **Session-2020**

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+(P/2)+T
1	Metallurgical Engineering	2038371(038)	Material Science	3	-	-	3
2	Metallurgical Engineering	2038372(038)	Extractive Metallurgy	3	-	-	3
3	Metallurgical Engineering	2038373(038)	Fuel Furnace and Refractories	3	-	-	3
4	Metallurgical Engineering	2038374(038)	Mineral Processing	2	-	1	3
5	Metallurgical Engineering	2038375(038)	Metallurgical Thermodynamics and Kinetics	3	-	1	4
6	Metallurgical Engineering	2038361(038)	Material Science(Lab)	-	2	-	1
7	Metallurgical Engineering	2038362(038)	Fuel Furnace and Refractories (Lab)	-	2	-	1
8	Metallurgical Engineering	2038363(038)	Mineral Processing(Lab)	-	2	-	1
9	Metallurgical Engineering	2038364(038)	Mini project	-	2	-	1
10	Humanities	-	Personality Development	-	2	-	0
11	Humanities	-	Health, Hygiene & Yoga	-	2	-	0
Total				**14**	**12**	**02**	**20**

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

Tutorial (T) --> SL : Self Learning.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester – III

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	Metallurgical Engineering	2038371(038)	Material Science	70	20	30	-	-	120
2	Metallurgical Engineering	2038372(038)	Extractive Metallurgy	70	20	30	-	-	120
3	Metallurgical Engineering	2038373(038)	Fuel Furnace and Refractories	70	20	30	-	-	120
4	Metallurgical Engineering	2038374(038)	Mineral Processing	70	20	30	-	-	120
5	Metallurgical Engineering	2038375(038)	Metallurgical Thermodynamics and Kinetics	70	20	30	-	-	120
6	Metallurgical Engineering	2038361(038)	Material Science(Lab)	-	-	-	40	60	100
7	Metallurgical Engineering	2038362(038)	Fuel Furnace and Refractories (Lab)	-	-	-	40	60	100
8	Metallurgical Engineering	2038363(038)	Mineral Processing(Lab)	-	-	-	40	60	100
9	Metallurgical Engineering	2038364(038)	Mini project	-	-	-	50	50	100
10	Humanities	-	Personality Development	-	-	-	-	-	-
11	Humanities	-	Health, Hygiene & Yoga	-	-	-	-	-	-
Total				**350**	**100**	**150**	**170**	**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.

iv) ESE in Mini project includes Project report, Attendance, Performance and Presentation.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester – IV

Scheme of Studies: **Session-2020**

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+(P/2)+T
1	Metallurgical Engineering	2038471(038)	Physical Metallurgy	3	-	1	4
2	Metallurgical Engineering	2038472(038)	Iron Production	3	-	-	3
3	Metallurgical Engineering	2038473(038)	Corrosion Engineering	3	-	-	3
4	Metallurgical Engineering	2038474(038)	Non Ferrous Extractive Metallurgy	3	-	-	3
5	Metallurgical Engineering	2038475(038)	Fundamentals of Mechanical Metallurgy	2	-	1	3
6	Metallurgical Engineering	2038461(038)	Physical Metallurgy (Lab)	-	2	-	1
7	Metallurgical Engineering	2038462(038)	Corrosion Engineering (Lab)	-	2	-	1
8	Metallurgical Engineering	2038463(038)	Fundamental of Mechanical Metallurgy (Lab)	-	2	-	1
9	Metallurgical Engineering	2038464(038)	Industrial Training, Phase-I	-	2	-	1
10	Humanities	-	Value Education	-	2	-	0
11	Humanities	-	Library	-	2	-	0
Total				**14**	**12**	**02**	**20**

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

Tutorial (T) --> SL : Self Learning.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester – IV

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	Metallurgical Engineering	2038471(038)	Physical Metallurgy	70	20	30	-	-	120
2	Metallurgical Engineering	2038472(038)	Iron Production	70	20	30	-	-	120
3	Metallurgical Engineering	2038473(038)	Corrosion Engineering	70	20	30	-	-	120
4	Metallurgical Engineering	2038474(038)	Non Ferrous Extractive Metallurgy	70	20	30	-	-	120
5	Metallurgical Engineering	2038475(038)	Fundamentals of Mechanical Metallurgy	70	20	30	-	-	120
6	Metallurgical Engineering	2038461(038)	Physical Metallurgy (Lab)	-	-	-	40	60	100
7	Metallurgical Engineering	2038462(038)	Corrosion Engineering (Lab)	-	-	-	40	60	100
8	Metallurgical Engineering	2038463(038)	Fundamental of Mechanical Metallurgy (Lab)	-	-	-	40	60	100
9	Metallurgical Engineering	2038464(038)	Industrial Training, Phase-I	-	-	-	80	20	100
10	Humanities	-	Value Education	-	-	-	-	-	-
11	Humanities	-	Library	-	-	-	-	-	-
Total				**350**	**100**	**150**	**200**	**200**	**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 Metallurgical Engineering

Semester - V

Scheme of Studies: **Session-2020**

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+(P/2)+T
1	Metallurgical Engineering	2038571(038)	Steel Production	3	-	1	4
2	Metallurgical Engineering	2038572(038)	Entrepreneurship Development and Management	3	-	-	3
3	Metallurgical Engineering	2038573(038)	Material Testing	2	-	1	3
4	Metallurgical Engineering	2038574(038)	Heat Treatment	2	-	1	3
5	Metallurgical Engineering	2038575(038)	Metal Joining and Safety Engineering	2	-	1	3
6	Metallurgical Engineering	2038561(038)	Material Testing (Lab)	-	2	-	1
7	Metallurgical Engineering	2038562(038)	Heat Treatment (Lab)	-	2	-	1
8	Metallurgical Engineering	2038563(038)	Metal Joining and Safety Engineering (Lab)	-	2	-	1
9	Metallurgical Engineering	2038564(038)	Industrial Training Phase-II	-	2	-	1
10	Humanities	-	Group Discussion	-	2	-	0
11	Humanities	-	Indian Constitution	-	2	-	0
Total				**12**	**12**	**04**	**20**

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

Tutorial (T)→ SL : Self Learning.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering
Semester – V

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	Metallurgical Engineering	2038571(038)	Steel Production	70	20	30	-	-	120
2	Metallurgical Engineering	2038572(038)	Entrepreneurship Development and Management	70	20	30	-	-	120
3	Metallurgical Engineering	2038573(038)	Material Testing	70	20	30	-	-	120
4	Metallurgical Engineering	2038574(038)	Heat Treatment	70	20	30	-	-	120
5	Metallurgical Engineering	2038575(038)	Metal Joining and Safety Engineering	70	20	30	-	-	120
7	Metallurgical Engineering	2038561(038)	Material Testing (Lab)	-	-	-	40	60	100
8	Metallurgical Engineering	2038562(038)	Heat Treatment (Lab)	-	-	-	40	60	100
9	Metallurgical Engineering	2038563(038)	Metal Joining and Safety Engineering (Lab)	-	-	-	40	60	100
	Metallurgical Engineering	2038564(038)	Industrial Training Phase-II	-	-	-	80	20	100
10	Humanities	-	Group Discussion	-	-	-	-	-	-
11	Humanities	-	Indian Constitution	-	-	-	-	-	-
Total				**350**	**100**	**150**	**200**	**200**	**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.

iv) ESE in Mini project includes Project report, Attendance, Performance and Presentation.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester - VI

Scheme of Studies: **Session-2020**

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+(P/2)+T
1	Metallurgical Engineering	2038671(038)	Foundry Technology	3	-		3
2	Metallurgical Engineering	2038672(038)	Computer Aided Metallurgical Analysis and Quality Control	3	-	1	4
3	Metallurgical Engineering	2038673(038)	Ferrous and Non Ferrous Alloy	3	-	-	3
4	Metallurgical Engineering	2038674(038)	Industrial Engineering and Management	3	-	-	3
5	Metallurgical Engineering	2038675(038)	Non Metallic and Advance Materials	2	-	1	3
6	Metallurgical Engineering	2038661(038)	Computer Aided Metallurgical Analysis and Quality Control (Lab)	-	2	-	1
7	Metallurgical Engineering	2038662(038)	Ferrous and Non Ferrous Alloy (Lab)	-	2	-	1
8	Metallurgical Engineering	2038663(038)	Foundry Technology (Lab)	-	2	-	1
9	Metallurgical Engineering	2038664(038)	Major Project	-	2	-	1
10	Humanities	--	Paper Presentation	-	2	-	0
11	Humanities	--	Sports	-	2	-	0
Total				**14**	**12**	**02**	**20**

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

Tutorial (T) --> SL : Self Learning.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Metallurgical Engineering

Semester - VI

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	Metallurgical Engineering	2038671(038)	Foundry Technology	70	20	30	-	-	120
2	Metallurgical Engineering	2038672(038)	Computer Aided Metallurgical Analysis and Quality Control	70	20	30	-	-	120
3	Metallurgical Engineering	2038673(038)	Ferrous and Non Ferrous Alloy	70	20	30	-	-	120
4	Metallurgical Engineering	2038674(038)	Industrial Engineering and Management	70	20	30	-	-	120
5	Metallurgical Engineering	2038675(038)	Non Metallic and Advance Materials	70	20	30	-	-	120
6	Metallurgical Engineering	2038661(038)	Computer Aided Metallurgical Analysis and Quality Control (Lab)	-	-	-	40	60	100
7	Metallurgical Engineering	2038662(038)	Ferrous and Non Ferrous Alloy (Lab)	-	-	-	40	60	100
8	Metallurgical Engineering	2038663(038)	Foundry Technology (Lab)	-	-	-	40	60	100
9	Metallurgical Engineering	2038664(038)	Major Project	-	-	-	50	50	100
10	Humanities	--	Paper Presentation	-	-	-	-	-	-
11	Humanities	--	Sports	-	-	-	-	-	-
Total				**350**	**100**	**150**	**170**	**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.