Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION
BACHELOR OF ENGINEERING
MECHANICALENGINEERING (PRODUCTION)
III Semester

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Appl Mathematics	337351(14)	Mathematics-III	4	1	-	80	20	20	120	5
2.	Mech. Engg	337352(37)	Machine Drawing	4	1	-	80	20	20	120	5
3.	Mech. Engg	337353(37)	Material Science & Metallurgy	3	1	-	80	20	20	120	4
4	Mech. Engg	337354(37)	Mechanics of Solids-I	4	1	-	80	20	20	120	5
5	Mech. Engg	337355(37)	Engineering Thermodynamics	4	1	-	80	20	20	120	5
6	Mech. Engg	337356(37)	Mechanical Measurements & Metrology	3	1	-	80	20	20	120	4
7	Mech. Engg	337361(37)	Machine Drawing Lab	-	-	3	40	-	20	60	2
8	Mech. Engg	337362(37)	Material Testing Lab	-	-	2	40	-	20	60	1
9	Mech. Engg	337363(37)	Engineering Thermodynamics Lab	-	-	2	40	-	20	60	1
10	Mech. Engg	337364(37)	Mechanical Measurements & Metrology Lab	-	-	2	40	-	20	60	1
11	Humanities	337365(46)	Value Education	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
Total				**22**	**6**	**12**	**640**	**120**	**240**	**1000**	**34**

L: Lecture, T: Tutorial, P: Practical, ESE: End Semester Exam, CT: Class Test, TA: Teachers Assessment
Note: Duration of End Semester Examination all theory papers will be of Three Hours **except for Machine Drawing Paper (at Sl. No. 2) which is of four hours duration.**

Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (MECHANICAL ENGINEERING (PRODUCTION)

IV Semester

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P)/ 2
				L	T	P	ESE	CT	TA		
1.	Mech. Engg	337451(37)	Fluid Mechanics	4	1	-	80	20	20	120	5
2.	Mech. Engg	381452(37)	Plant Layout and Material Handling	4	1	-	80	20	20	120	5
3.	Mech. Engg	381453(37)	Welding technology	4	1	-	80	20	20	120	5
4	Mech. Engg	337454(37)	Kinematics of Machines	4	1	-	80	20	20	120	5
5	Mech. Engg	337455(37)	Numerical Analysis & Computer Programming (C & C++)	4	1	-	80	20	20	120	5
6	Mech. Engg	337456(37)	Manufacturing Science-I	3	1	-	80	20	20	120	4
7	Mech. Engg	337461(37)	Fluid mechanics	-	-	2	40	-	20	60	1
8	Mech. Engg	337462(37)	Computer Aided Drafting Lab	-	-	2	40	-	20	60	1
9	Mech. Engg	337463(37)	Kinematics of Mechanics Lab	-	-	2	40	-	20	60	1
10	Mech. Engg	337464(37)	NACP Lab	-	-	2	40	-	20	60	1
11	Humanities	337465(46)	Health, Hygiene & Yoga	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
Total				23	6	11	640	120	240	1000	34

L: Lecture, T: Tutorial, P: Practical, ESE: End Semester Exam, CT: Class Test, TA: Teachers

Assessment Note (1): Duration of all theory papers will be of Three Hours.

Note (2): Industrial Training of six weeks is mandatory for B.E. students. It is to be completed in two parts. The first part will be in summer after

IV semester after which students have to submit a training report which will be evaluated by the college teachers during V Semester.

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

B.E. V SEMESTER

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Mech. Engg	381551(37)	Design of Machine element	4	1	-	80	20	20	120	5
2.	Mech. Engg	381552(37)	Industrial Management	3	1	-	80	20	20	120	4
3.	Mech. Engg	381553(37)	Reliability Engg.	4	1	-	80	20	20	120	5
4	Mech. Engg	381554(37)	Metal Forming Process	4	1	-	80	20	20	120	5
5	Mech. Engg	381555(37)	Manufacturing Science - II	3	1	-	80	20	20	120	4
6	Mech. Engg	381556(37)	Operation Research	4	1	-	80	20	20	120	5
7	Mech. Engg	381561(37)	Design of Machine element Lab	-	-	2	40	-	20	60	1
8	Mech. Engg	381562(37)	Manufacturing Science Lab	-	-	2	40	-	20	60	1
9	Mech. Engg	381563(37)	Operation Research Lab	-	-	2	40	-	20	60	1
10	Mech. Engg	381564(37)	Metal Forming Process Lab	-	-	2	40	-	20	60	1
11	Humanities	381565(46)	Personality Development	-	-	2	-	-	20	20	1
12	Mech. Engg	381566(37)	* Practical Training Evaluation/Library	-	-	2	-	-	20	20	1
Total				22	6	12	640	120	240	1000	34

L – Lecturer T – Tutorial,
P – Practical, ESE – End Semester Exam, CT – Class Test
TA – Teacher's Assessment

*To be completed after IV sem. and before the commencement of V Sem.

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

B.E. VI SEMESTER

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Mech. Engg	381651(37)	Principle of Metal Cutting	4	1	-	80	20	20	120	5
2.	Mech. Engg	381652(37)	Estimation and Costing	4	1	-	80	20	20	120	5
3.	Mech. Engg	381653(37)	Total Quality System & Engineering	4	1	-	80	20	20	120	5
4	Mech. Engg	337655(37)	Production Management	4	1	-	80	20	20	120	5
5	Mech. Engg	381654(37)	Work System Design	3	1	-	80	20	20	120	4
6	Refer Table -1		Professional Elective-I	4	1	-	80	20	20	120	5
7	Mech. Engg	381661(37)	Principle of Metal Cutting Lab	-	-	2	40	-	20	60	1
8	Mech. Engg	381662(37)	Quality Control Lab	-	-	2	40	-	20	60	1
9	Mech. Engg	381663(37)	Work System Lab	-	-	2	40	-	20	60	1
10	Mech. Engg	381664(37)	Production Management Lab	-	-	2	40	-	20	60	1
11	Management	381665(76)	Managerial Skills	-	-	2	40	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
			Total	23	6	11	640	120	240	1000	34

L – Lecturer T – Tutorial,
P – Practical, ESE – End Semester Exam, CT – Class Test
TA – Teacher's Assessment

Note: Industrial Training of twelve weeks is mandatory for B.E. students. It is to be completed in two equal parts. The first part must have been completed in summer after 4^{th} sem. The 2^{nd} part to be completed to be during summer after six sem. After which students have to submit a training report which will be evaluated by college teachers during BE-VII sem.

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

Table – 1
Professional Elective – I

S.N.	Board of study	Subject Code	Subject
1	Mechanical	337671(37)	Industrial Hydraulics
2	Mechanical	381672(37)	Control Engineering
3	Mechanical	337673(37)	Engineering Economics
4	Mechanical	381674(37)	Resource Management Techniques
5	Mechanical	381675(37)	Instrumentation and Control
6	Mechanical	381676(37)	Tribology
7	Mechanical	381677(37)	Surface Engineering

Note: (1) $1/4^{th}$ of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

Note: (2) Choice of elective course once made for an examination cannot be changed in future examinations.

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

B.E. VII SEMESTER

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Mech. Engg	337731(37)	Automobile Engineering	3	1	-	80	20	20	120	4
2.	Mech. Engg	337734(37)	Machine Tool Technology	4	1	-	80	20	20	120	5
3.	Mech. Engg	337733(37)	Computer Aided Design & Manufacturing	4	1	-	80	20	20	120	5
4	Mech. Engg	381732(37)	Production Planning & Control	4	1	-	80	20	20	120	5
5	Refer Table - II		Professional Elective-II	4	1	-	80	20	20	120	5
6	Mech. Engg	381761(37)	Automobile Engineering Lab	-	-	3	40	-	20	60	2
7	Mech. Engg	381762(37)	Production Planning & Control Lab	-	-	3	40	-	20	60	2
8	Mech. Engg	381763(37)	Computer Aided Design and Manufacturing Lab	-	-	3	40	-	20	60	2
9	Mech. Engg	381764(37)	Minor Project	-	-	3	100	-	40	140	2
10	Management	381765(76)	Innovative & Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Mech. Engg	381766(37)	** Practical Training Evolution/Library	-	-	1	-	-	40	40	1
Total				19	5	15	620	100	280	1000	34

L – Lecturer T – Tutorial,
P – Practical, ESE – End Semester Exam, CT – Class Test
TA – Teacher's Assessment
**To be completed after VI sem. and before the commencement of VII Sem.

Table – II
Professional Elective - II

S.No.	Board of study	Subject Code	Subject
1	Mechanical	381741 (37)	Non Destructive Testing Methods
2	Mechanical	381742 (37)	Material Management
3	Mechanical	381743 (37)	Flexible Manufacturing System
4	Mechanical	381744 (37)	Machine Vision
5	Mechanical	337745 (37)	Numerical Control of Machine Tool
6	Mechanical	381746 (37)	Management Information System
7	Mechanical	381747 (37)	Advanced Foundry Technology

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

B.E. VIII SEMESTER

S. No.	Board of Study	Sub. Code	SUBJECT	PERIODS PER WEEK			SCHEME OF EXAM Theory/Practical			Total Marks	Credit L+(T+P/2
				L	T	P	ESE	CT	TA		
1.	Mech. Engg	381831(37)	Robotics	4	1	-	80	20	20	120	5
2.	Mech. Engg	381832(37)	Industrial Automation	4	1	-	80	20	20	120	5
3.	Mech. Engg	381833(37)	Rapid Prototyping	4	1	-	80	20	20	120	5
4	Refer Table - III		Professional Elective-III	4	1	-	80	20	20	120	5
5	Refer Table - IV		Open Elective-IV	4	1	-	80	20	20	120	5
6	Mech. Engg	381861(37)	Robotics Lab	-	-	2	40	-	20	60	1
7	Mech. Engg	381862(37)	Industrial automation Lab	-	-	2	40	-	20	60	1
8	Mech. Engg	381863(37)	Computer Aided Simulation & Analysis Lab	-	-	2	40	-	20	60	1
9	Mech. Engg	381864(37)	Major Project	-	-	6	100	-	80	180	3
10	Mech. Engg	381865(37)	Report Writing & Seminar	-	-	2	-	-	40	40	1
11			Library	-	-	1	-	-	-	-	-
Total				20	5	15	620	100	280	1000	32

L – Lecturer T – Tutorial,
P – Practical, ESE – End Semester Exam, CT – Class Test
TA – Teacher's Assessment

Table – III
Professional Elective - III

S.No.	Board of study	Subject Code	Subject
1	Mechanical	337841(37)	Mechatronics
2	Mechanical	337844(37)	Precision Engineering
3	Mechanical	337843(37)	Optimization Techniques
4	Mechanical	337845(37)	Agile Manufacturing
5	Mechanical	337846(37)	Industrial Packaging
6	Mechanical	337842(37)	Vibration and Noise control
7	Mechanical	337847(37)	Maintenance Management

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING AND EXAMINATION
B.E. MECHANICAL ENGINEERING (PRODUCTION)

Table IV

Open Electives IV

S.N.	Board of study	Code	Name of subject
1	Management	300851(76)	Enterprise Resource Planning (Except CSE & IT Branch)
2	Information Technology	300884 (33)	E-Commerce & strategic IT(Except CSE & IT Branch)
3	Management	300853(76)	Technology Management
4	Information Technology	300854(33)	Decision Support & Executive information systems
5	Computer Science & Engg.	300855(22)	Software Technology
6	Management	300856(76)	Knowledge Entrepreneurship
7	Management	300857(76)	Finance Management
8	Management	300858(76)	Project Planning, Management & evaluation
9	Mechanical Engg.	300859(37)	Safety Engineering
10	Computer Science & Engg.	300801(22)	Bio Informatics
11	Mechanical Engg.	300802(37)	Energy Conservation & Management
12	Nanotechnology	300803(47)	Nanotechnology
13	Management	300804(76)	Intellectual Property Rights
14	Mechanical Engg.	300805(37)	Value Engineering
15	Civil Engg.	300806(20)	Disaster Management
16	Civil Engg.	300807(20)	Construction Management
17	Civil Engg.	300808(20)	Ecology and Sustainable Development
18	Chem. Engg.	300809(19)	Non Conventional Energy Sources
19	Electrical Engg.	300810(24)	Energy Auditing & Management (Except Electrical Engg. Branch)
20	Mechanical Engg.	300811(37)	Managing Innovation & Entrepreneurship
21	Information Technology	300812(33)	Biometrics
22	Information Technolgy	300813(33)	Information Theory & Coding
23	Computer Science & Engg.	300814(22)	Supply Chain Management
24	Computer Science & Engg.	300815(22)	Internet & Web Technology
25	Electrical Engg.	300816(24)	Electrical Estimation and Costing
26	Electrical& Electronics Engg.	300817(25)	Non Conventional Energy Sources
27	Computer Science & Engg.	300818(22)	Big Data and Hadoop

Note: (1) $1/4^{th}$ of total strength of students subject to minimum strength of 20 students is required to offer and elective in the college in a particular academic session.

Note: (2) Choice of elective course once made for an examination cannot be changed in future examinations.