



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

Courses of Study and Scheme of Examination of B.E. First Year (2012-13)
Common to all branches of Engineering except Bio-Tech. & Bio-Medical Engg.

FIRST SEMESTER

S. No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [L+ <u>[T+P]</u>] 2
							Theory				
				L	T	P	ESE	CT	TA		
1	Basic Sciences	300114(14)	Applied Mathematics-I	4	1	-	80	20	20	120	5
2	Humanities	300111(46)	Professional Communication in English	4	-	-	80	20	20	120	4
3	Basic Sciences	300112(11)	Applied Chemistry	4	1	-	80	20	20	120	5
4	Mechanical Engineering	300211(37)	Engineering Graphics	2	1	4	80	20	20	120	5
5	Elect. Engg.	300118(24)	Elements of Electrical Engineering (New)	4	1	-	80	20	20	120	5
6	Basic Sciences	300121(11)	Applied Chemistry (Lab)	-	-	2	40	-	20	60	1
7	Elect. Engg.	300126(24)	Elements of Electrical Engineering (Lab)	-	-	2	40	-	20	60	1
8	Mechanical Engineering	300124(37)	Workshop Practice	-	-	3	40	-	20	60	2
9	Humanities	300127(46)	Library & Seminar	-	-	1	-	-	20	20	1
TOTAL				18	4	12	520	100	180	800	29

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

Note: (i) The teaching in the 1st and 2nd semester will be divided in two groups consisting of various branches as shown below: P1-GROUP: Electronics & Communication, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics; Q1-GROUP: Computer Science, Mechanical, Civil, Mining and Applied Electronics & Instrumentation, Metallurgy Mechatronics.

(ii) Applied Mathematics-I will be taught to both the groups in the first semester.

(iii) Library & seminar will be conducted by the relevant discipline/humanities as decided by the Principal.



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Courses of Study and Scheme of Examination of B.E. First Year (2012-13)
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SECOND SEMESTER

S. No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [L+[T+P]] 2
							Theory				
				L	T	P	ESE	CT	TA		
1	Basic Sciences	300214(14)	Applied Mathematics-II	4	1	-	80	20	20	120	5
2	Civil Engg.	300212(20)	Environment & Ecology	4	-	-	80	20	20	120	4
3	Basic Sciences	300218(15)	Applied Physics (New)	4	1	-	80	20	20	120	5
4	Civil Engg.	300216(20)	Basic Civil Engineering	4	1	-	80	20	20	120	5
5	Mechanical Engg.	300219(37)	Fundamental of Mechanical Engineering (New)	4	1	-	80	20	20	120	5
6	Basic Sciences	300228(15)	Applied Physics (Lab)	-	-	2	40	-	20	60	1
7	Mechanical Engg.	300229(37)	Mechanical Engineering (Lab)	-	-	2	40	-	20	60	1
8	Humanities	300221(46)	Communication Skills (Lab)	-	-	3	40	-	20	60	2
9	Humanities	300220(46)	Library & Seminar	-	-	1	-	-	20	20	1
TOTAL				20	4	8	520	100	180	800	29

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

Note:

- The teaching in the 1st and 2nd semester will be divided in two groups consisting of various branches as shown below:
P1-GROUP: Electronics & Communication, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics; Q1-GROUP: Computer Science, Mechanical, Civil, Mining and Applied Electronics & Instrumentation, Metallurgy, Mechatronics.
- Applied Mathematics-II will be taught to both the groups in the second semester.
- Library & seminar will be conducted by the relevant discipline/humanities as decided by the Principal.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (ELECTRICAL& ELECTRONICS ENGINEERING) III Semester

Sr. No.	Board of Study	Subject Code	Subject	Period per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ESE	CT	TA		
1	Applied Mathematics	325351(14)	Mathematics -III	4	1	-	80	20	20	120	5
2	Applied Mathematics	325352(14)	Numerical Analysis	3	1		80	20	20	120	4
3	Electrical & Electronics Engg.	325353(25)	Basic Electronics	3	1		80	20	20	120	4
4	Electrical & Electronics Engg.	325354(25)	Electric Circuits	4	-		80	20	20	120	4
5	Electrical Engg.	325355(24)	Electrical Power Generation	3	1	-	80	20	20	120	4
6	Electrical Engg.	325356(24)	Electrical Machines-I	3	1		80	20	20	120	4
7	Electrical & Electronics Engg.	325361(25)	Electrical Machines Lab-I			3	40		20	60	2
8	Electrical & Electronics Engg.	325362(25)	Basic Electronics Lab			3	40		20	60	2
9	Electrical & Electronics Engg.	325363(25)	Electric Circuits Lab			3	40		20	60	2
10	Electrical & Electronics Engg.	325364(25)	Programming with C Lab			3	40		20	60	2
11	Humanities	325365(46)	Value Education			2			40	40	1
12	Electrical & Electronics Engg.		Library			1					
			Total	20	5	15	640	120	240	1000	34

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

Note: Duration of all theory papers will be of Three Hours.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION BE (ELECTRICAL & ELECTRONICS ENGINEERING) IV SEMESTER

Sr. No.	Board of Study	Subject Code	Subject	Period per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ESE	CT	TA		
1	Electrical & Electronics Engg.	325451(25)	Network Analysis & Synthesis	3	1	-	80	20	20	120	4
2	Electrical Engg.	325452(24)	Electromagnetic Theory	3	1	-	80	20	20	120	4
3	Electrical Engg.	325453(24)	Electrical Measurements & Measuring Instruments	3			80	20	20	120	4
4	Electrical Engg.	325454(24)	Electrical Power Systems	3	1	-	80	20	20	120	4
5	Electrical & Electronics Engg.	325455(25)	Analog Electronics	3	1		80	20	20	120	4
6	Electrical & Electronics Engg.	325456(25)	Digital Electronics and Logic Design	3	1		80	20	20	120	4
7	Electrical & Electronics Engg.	325461(25)	Electrical Measurements & Measuring Instruments Lab			3	40		20	60	2
8	Electrical & Electronics Engg.	325462(25)	Analog Electronics Lab			3	40		20	60	2
9	Electrical & Electronics Engg.	325463(25)	Digital Electronics and Logic Design Lab			4	40		20	60	2
10	Electrical & Electronics Engg.	325464(25)	Programming Lab (Mat Lab)			4	40		20	60	2
11	Humanities	325465(46)	Health, Hygiene & Yoga			2			40	40	1
12	Electrical & Electronics Engg.		Library			1					
			Total	18	5	17	640	120	240	1000	33

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. student. 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 B.E. V semester.

Chhattisgarh Swami Vivekanand Technical University, Bhilai (C.G.)

SCHEME OF TEACHING AND EXAMINATION

B.E. V SEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING

Sr. No.	Board of Study	Subject Code	Subject	Periods per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ESE	CT	TA		
1	Electrical & Electronics Engg.	325551(25)	Microprocessor and Peripherals	4	0	-	80	20	20	120	4
2	Electrical & Electronics Engg.	325552(25)	Integrated Circuits & Applications	3	1	-	80	20	20	120	4
3	Electrical & Electronics Engg.	325553(25)	Linear Control Systems	3	1	-	80	20	20	120	4
4	Electrical & Electronics Engg.	325554(25)	Signals and Systems	3	1	-	80	20	20	120	4
5	Electrical & Electronics Engg..	325555(25)	Electrical Machines-II	3	1	-	80	20	20	120	4
6	Electrical & Electronics Engg.	325556(25)	Communication Systems	4	0	-	80	20	20	120	4
7	Electrical & Electronics Engg.	325561(25)	Electrical Machines- II Lab			3	40	-	20	60	2
8	Electrical & Electronics Engg.	325562(25)	Linear Control Systems Lab			3	40	-	20	60	2
9	Electrical & Electronics Engg.	325563(25)	Microprocessor and Peripherals Lab			3	40	-	20	60	2
10	Electrical & Electronics Engg.	325564(25)	Integrated Circuits & Applications Lab			3	40	-	20	60	2
11	Humanities	300565(46)	Personality Development			2	-	-	20	20	1
12	Electrical & Electronics Engg.	325566(25)	* Practical Training Evaluation and Library			2	-	-	20	20	1
Total				20	4	16	640	120	240	1000	34

L: Lecture

T: Tutorial

P: Practical

ESE: End Semester Examination

CT: Class Test

TA: Teacher's Assessment

** Industrial Training of eight weeks is mandatory for B.E. student. It is to be completed in two parts. The first part will be in summer after IV sem. after which students have to submit a training report which will be evaluated by the college teachers during B.E. V sem.*

Chhattisgarh Swami Vivekanand Technical University, Bhilai (C.G.)

SCHEME OF TEACHING AND EXAMINATION

B.E. VI SEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING

Sr. No.	Board of Study	Subject Code	Subject	Periods per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ESE	CT	TA		
1	Electrical & Electronics Engg.	325651(25)	Electrical Power System -II	3	1	-	80	20	20	120	4
2	Electrical & Electronics Engg.	325652(25)	Modern Instrumentation Techniques	4	0	-	80	20	20	120	4
3	Electrical & Electronics Engg.	325653(25)	Advanced Microprocessors and Peripherals	3	1	-	80	20	20	120	4
4	Electrical & Electronics Engg.	325654(25)	Power Electronics Devices and Circuits	3	1	-	80	20	20	120	4
5	Electrical & Electronics Engg.	325655(25)	Digital Signal Processing	3	1	-	80	20	20	120	4
6	Refer Table -I		Professional Elective -1	4	0	-	80	20	20	120	4
7	Electrical & Electronics Engg.	325661(25)	Digital Signal Processing Lab	-	-	3	40	-	20	60	2
8	Electrical & Electronics Engg.	325662(25)	Power System Simulation Lab	-	-	3	40	-	20	60	2
9	Electrical & Electronics Engg.	325663(25)	Power Electronics Devices and Circuits Lab	-	-	3	40	-	20	60	2
10	Electrical & Electronics Engg.	325664(25)	Advanced Microprocessors and Peripherals Lab	-	-	3	40	-	20	60	2
11	Management	300665(76)	Managerial Skills	-	-	2	-	-	40	40	1
12	Electrical & Electronics Engg.		Library	-	-	2	-	-	-	--	1
			Total	20	4	16	640	120	240	1000	34

L: Lecture **T:** Tutorial **P:** Practical
ESE: End Semester Examination **CT:** Class Test **TA:** Teachers' Assessment

Note: Industrial Training of eight 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 IV semester. The second part to be completed during summer after VI semester after which students have to submit a training report which will be evaluated by college teachers during B.E. VII semester.

Table -1: Professional Elective – 1

S. No.	Board of Study	Subject Code	Subject
1	Electrical & Electronics Engg.	325671(25)	Medical Electronics
2	Electrical & Electronics Engg.	325672(25)	Computer Organization and Architecture
3	Electrical & Electronics Engg.	325673(25)	Testing & Commissioning of Electrical Equipments
4	Electrical & Electronics Engg.	325674(25)	Simulation & Programming
5	Electrical & Electronics Engg.	325675(25)	Distributed Generation

Note (1) – 1/4th of the total strength of students subject to minimum of twenty students is required to offer an 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. VIIth SEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING

Sr. No.	Board of Study	Subject Code	Subject	Periods per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ES E	CT	TA		
1	Electrical Engg.	324731(24)	Switchgear & Protection	4	1	-	80	20	20	120	5
2	Electrical & Electronics Engg	325732(25)	Soft Computing and its Applications	4	1	-	80	20	20	120	5
3	Electrical Engg.	324733(24)	Electrical Drives	4	1	-	80	20	20	120	5
4	Electrical & Electronics Engg.	325734(25)	Microcontrollers and Applications	4	1	-	80	20	20	120	5
5	Refer Table -2		Professional Elective -II	4	1	-	80	20	20	120	5
6	Electrical & Electronics Engg.	325761(25)	Switchgear & Protection Lab	-	-	3	40	-	20	60	2
7	Electrical & Electronics Engg.	325762(25)	Electric Drives Lab	-	-	3	40	-	20	60	2
8	Electrical & Electronics Engg.	325763(25)	Microcontrollers and Applications Lab	-	-	3	40	-	20	60	2
9	Electrical & Electronics Engg.	325764(25)	Minor Project	-	-	4	100	-	40	140	2
10	Electrical & Electronics Engg.	325765(25)	Innovative & Entrepreneurial Skills	-	-	1	-	-	40	40	1
11	Electrical & Electronics Engg.	325766(25)	** Practical Training Evaluation and Library	-	-	1	-	-	40	40	1
			Total	20	5	15	620	100	280	1000	35

L- Lecture 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 .

S.No.	Board of Study	Subject Code	Subject
1	Electrical Engg.	324741(24)	Power Apparatus System
2	Electrical & Electronics Engg.	325742(25)	Illumination Engineering
3	Electrical Engg.	324747(24)	Digital Image Processing
4	Electrical & Electronics Engg.	325744(25)	Fiber optics
5	Electrical & Electronics Engg.	325745(25)	Industrial Automation
6	Electrical & Electronics Engg.	325746(25)	Electrical Machine Design

Note -1/4th of total strength of students is required to offer an elective in the college in a particular academic session.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

B.E. VIIIth SEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING

Sr. No.	Board of Study	Subject Code	Subject	Periods per week			Scheme of Exam			Total Marks	Credit L+ (T+P) / 2
				L	T	P	Theory / Practical				
							ESE	CT	TA		
1	Electrical & Electronics Engg.	325831(25)	High Voltage Engg.	4	0	-	80	20	20	120	4
2	Electrical & Electronics Engg.	325832(25)	Management Concepts & Techniques	4	0	-	80	20	20	120	4
3	Electrical Engg.	325833(25)	Computer Aided Power System	4	0	-	80	20	20	120	4
4	Refer Table -3		Professional Elective -III	3	1	-	80	20	20	120	4
5	Refer Table –4		Open Elective - IV	3	1	-	80	20	20	120	4
6	Electrical & Electronics Engg.	325861(25)	Computer Simulation Lab	-	-	3	40	-	20	60	2
7	Electrical & Electronics Engg.	325862(25)	Installation Maintenance & Testing of Electrical Equipments., Lab	-	-	3	40	-	20	60	2
8	Electrical & Electronics Engg.	325863(25)	High Voltage Engg. Lab	-	-	3	40	-	20	60	2
9	Electrical & Electronics Engg.	325864(25)	Major Project	-	-	6	100	-	80	180	3
10	Electrical & Electronics Engg.	325865(25)	Report Writing & Seminar	-	-	1	-	-	40	40	1
11	Library			-	-	1	-	-	-	--	-
	Total			18	2	17	620	100	280	1000	30

L- Lecture 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 -3
Professional Elective –III

S.No.	Board of Study	Subject Code	Subject
1	Electrical & Electronics Engg.	325841(25)	EHV AC & DC Transmission
2	Electrical Engg.	324842(24)	Flexible AC Transmission System
3	Electrical & Electronics Engg.	325843(25)	Power Quality
4	Electrical & Electronics Engg.	325844(25)	Smart Grid Systems
5	Electrical Engg.	324844(24)	VLSI Design
6	Electrical Engg.	324848(24)	Satellite Communication

Table - 4

Open Elective –IV			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300851(76)	Enterprise Resource Planning (Except CSE & IT Branch)
2	Information Technology	300852(33)	E-Commerce & strategic IT (Except CSE & IT Branch)
3	Management	300853(76)	Technology Management
4	Information Technology	300854(33)	Decision Support & Executive Information system
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 Technology	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) 1/4th of total strength of students is required to offer an elective in the college in a particular academic session

(2) - Choice of elective course once made for an examination cannot be changed

Table - IV

Open Elective –IV			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300851(76)	Enterprise Resource Planning (Except CSE & IT Branch)
2	Information Technology	300852(33)	E-Commerce & strategic IT (Except CSE & IT Branch)
3	Management	300853(76)	Technology Management
4	Information Technology	300854(33)	Decision Support & Executive Information system
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 Technology	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) 1/4th of total strength of students is required to offer an elective in the college in a particular academic session.

(2) - Choice of elective course once made for an examination cannot be changed