



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+[T+P]] 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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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

B.E. III Semester Electronics & Telecommunication Engineering

Sl. No.	Board of Study	Code No.	Subjects	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Appl. Mathematics	328311(14)	Mathematics-III	4	1	-	80	20	20	120	5
2	Appl. Mathematics	328312 (14)	Numerical Analysis	3	1	-	80	20	20	120	4
3	Electronics & Telecom.	328313 (28)	Basic Electronics	3	1	-	80	20	20	120	4
4	Electronics & Telecom.	328314 (28)	Network Analysis and Synthesis	3	1	-	80	20	20	120	4
5	Electronics & Telecom.	328315 (28)	Solid State Devices and Components	2	1	-	80	20	20	120	3
6	Electronics & Telecom.	328316 (28)	Programming with C	3	1	-	80	20	20	120	4
7	Electronics & Telecom.	328321 (28)	Network Analysis and Synthesis Lab	-	-	3	40	-	20	60	2
8	Electronics & Telecom.	328322 (28)	Basic Electronics Lab	-	-	3	40	-	20	60	2
9	Electronics & Telecom.	328323 (28)	Programming with C Lab	-	-	4	40	-	20	60	2
10	Electronics & Telecom.	328324 (28)	Electronics Workshop	-	-	3	40	-	20	60	1
11	Humanities etc.	300325 (46)	Value Education	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
TOTAL				18	6	16	640	120	240	1000	32

L-Lecture, T- Tutorial, P - Practical, ESE- End Semester Examination, CT - Class Test, TA - Teacher's Assesment

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

CHHATTISGARH SWAMI VIVEKANAD TECHNICAL UNIVERSITY, BHILAI

SCHEME OF TEACHING AND EXAMINATION

BE (Electronics & Telecommunication Engineering) IV Semester

Sl. No.	Board of Study	Code No.	Subjects	Period Per Week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
				L	T	P	Theory/Practical				
							ESE	CT	TA		
1	Electronics & Telecom.	328451(28)	Numerical Analysis Using C	3	1	-	80	20	20	120	4
2	Electronics & Telecom.	328452(28)	Analog Communication	3	1	-	80	20	20	120	4
3	Electronics & Telecom.	328453(28)	Analog Electronics	3	1	-	80	20	20	120	4
4	Electronics & Telecom.	328454(28)	Microprocessor and Interfaces	3	1	-	80	20	20	120	4
5	Electronics & Telecom.	328455(28)	Signals and Systems	3	1	-	80	20	20	120	4
6	Electronics & Telecom.	328456(28)	Electromagnetic Fields & Transmission Lines	3	-	-	80	20	20	120	3
7	Electronics & Telecom.	328461(28)	Numerical Analysis Using C Lab	-	-	4	40	-	20	60	2
8	Electronics & Telecom.	328462(28)	Analog Communication Lab	-	-	4	40	-	20	60	2
9	Electronics & Telecom.	328463(28)	Analog Electronics Lab	-	-	4	40	-	20	60	2
10	Electronics & Telecom.	328464(28)	Microprocessor and Interfaces Lab	-	-	2	40	-	20	60	1
11	Humanities	328465(46)	Health, Hygiene & Yoga	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
TOTAL				18	5	17	640	120	240	1000	31

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

Scheme of Teaching and Examination B.E. V SEMESTER

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Sl. No.	Board of Study	Code No.	Subjects	Period Per Week			Scheme of Examination			Total Marks	Credit L+(T+P)/2
				L	T	P	Theory/ Practical				
							ESE	CT	TA		
1	Electronics & Telecommunication	328551(28)	Linear Integrated Circuits & Applications	3	1	-	80	20	20	120	4
2	Electronics & Telecommunication	328552(28)	Data Structures and Programming with C++	3	1	-	80	20	20	120	4
3	Electronics & Telecommunication	328553(28)	Antennas and Wave Propagation	3	1	-	80	20	20	120	4
4	Electronics & Telecommunication	328554(28)	Digital Communication	3	1	-	80	20	20	120	4
5	Electronics & Telecommunication	328555(28)	Advanced Microprocessor and Interfacing	3	1	-	80	20	20	120	4
6	Electronics & Telecommunication	328556(28)	Automatic Control System	3	1	-	80	20	20	120	4
7	Electronics & Telecommunication	328561(28)	Linear Integrated Circuits & Applications Lab	-	-	3	40	-	20	60	2
8	Electronics & Telecommunication	328562(28)	Data Structures and Programming with C++ Lab	-	-	4	40	-	20	60	2
9	Electronics & Telecommunication	328563(28)	Digital Communication Lab	-	-	4	40	-	20	60	2
10	Electronics & Telecommunication	328564(28)	Advanced Microprocessor and Interfacing Lab	-	-	2	40	-	20	60	1
11	Humanities	300565(46)	Personality Development	-	-	2	-	-	20	20	1
12	Electronics & Telecommunication	328566(28)	*Practical Training Evaluation and Library	-	-	1	-	-	20	20	1
TOTAL				18	6	16	640	120	240	1000	33

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

Scheme of Teaching and Examination

B.E. VI Semester

Electronics & Telecommunication Engineering

Sl. No.	Board of Study	Code No.	Subjects	Period Per Week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
				L	T	P	Theory/ Practical				
							ESE	CT	TA		
1	Electronics & Telecommunication	328651(28)	Digital Signal Processing	3	1	-	80	20	20	120	4
2	Electronics & Telecommunication	328652(28)	Electronic Circuit Design	3	1	-	80	20	20	120	4
3	Electronics & Telecommunication	328653(28)	Microcontroller & Embedded	3	1	-	80	20	20	120	4
4	Electronics & Telecommunication	328654(28)	VLSI Design	3	1	-	80	20	20	120	4
5	Electronics & Telecommunication	328655(28)	Information Theory & Coding	3	1	-	80	20	20	120	4
6	Refer Table -I		Professional Elective -I	3	-	-	80	20	20	120	3
7	Electronics & Telecommunication	328661(28)	Digital Signal Processing Lab	-	-	2	40	-	20	60	1
8	Electronics & Telecommunication	328662(28)	Electronic Circuit Design Lab	-	-	4	40	-	20	60	2
9	Electronics & Telecommunication	328663(28)	Microcontroller & Embedded	-	-	4	40	-	20	60	2
10	Electronics & Telecommunication	328664(28)	VLSI Design Lab	-	-	4	40	-	20	60	2
11	Management	300665(76)	Managerial Skills	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
TOTAL				18	5	17	640	120	240	1000	31

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 – I

Sl. No.	Board of Study	Code	Subject
1	Electronics & Telecom.	328671(28)	Internet & Web Technology
2	Electronics & Telecom.	328672(28)	Operating System
3	Electronics & Telecom.	328673(28)	Biomedical Electronics
4	Electronics & Telecom.	328674(28)	Electronic Engineering Materials & Components
5	Electronics & Telecom.	328675(28)	Computer Organization & Architecture
6	Electronics & Telecom.	328676(28)	Advanced Semiconductor Devices

Note:

- 1/4th of total strength of students to minimum of twenty students is required to offer an elective in the college in a particular academic session
- Choice of elective course once made for an examination cannot be changed in future examinations.

Name of the Programme: Bachelor of Engineering :::: Duration of the Programme: Four Years

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching and Examination

B.E. VII Semester Electronics & Telecommunication Engineering

Sl. No.	Board of Study	Code No.	Subjects	Period Per Week			Scheme of Exam			Total Marks	Credit L+(T+P)
				L	T	P	Theory/ Practical				
							ESE	CT	TA		
1	Electronics & Telecom.	328731(28)	Microwave Communication and Engineering	4	1	-	80	20	20	120	5
2	Electronics & Telecom.	328732(28)	Computer Networks	3	1	-	80	20	20	120	4
3	Electronics & Telecom.	328733(28)	Wireless Communications	3	1	-	80	20	20	120	4
4	Electronics & Telecom.	328734(28)	Management Concepts & Techniques	3	1	-	80	20	20	120	4
5	Refer Table -2		Professional Elective - II	3	1	-	80	20	20	120	4
6	Electronics & Telecom.	328761(28)	Microwave Communication and Engineering Lab	-	-	4	40	-	20	60	2
7	Electronics & Telecom.	328762(28)	Computer Networks Lab	-	-	4	40	-	20	60	2
8	Electronics & Telecom.	328763(28)	Advance Communication Lab	-	-	4	40	-	20	60	2
9	Electronics & Telecom.	328764(28)	Minor Project	-	-	4	100	-	40	140	2
10	Management	328765(28)	Innovative & Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Electronics & Telecom.	328766(28)	**Practical Training Evaluation and Library	-	-	1	-	-	40	40	1
TOTAL				16	5	19	620	100	280	1000	31

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

**** To be completed after VI Semester and before the commencement of VII Semester**

Table -2

Professional Elective - II

Sl. No.	Board of Study	Code	Subject
1	Electronics & Telecom.	328741(28)	Digital Circuit Design with Verilog HDL
2	Electronics & Telecom.	328742(28)	System Design with ARM
3	Electronics & Telecom.	328743(28)	Robotics & Controls
4	Electronics & Telecom.	328744(28)	Radar and Navigational Aids
5	Electrical and Electronics	325745(25)	Industrial Automation
6	Electronics & Telecom.	328746(28)	Neural Network & Fuzzy Logic
7	Electronics & Telecom.	328747(28)	RF Communication Design
8	Electronics & Telecom.	328748(28)	VLSI System Design
9	Electronics & Telecom.	328749(28)	Digital Image Processing

Note (1)- 1/4th of total strength of students subject to minimum of twenty students is required to offer an elective in the college 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. VIII Semester Electronics & Telecommunication Engineering

Sl. No.	Board of Study	Code No.	Theory Subjects	Period Per Week			Scheme of Exam			Total Marks	Credit L+(T+P)/ 2
				L	T	P	Theory/ Practical				
							ESE	CT	TA		
1	Electronics & Telecom.	328811 (28)	Optical Communication	3	1	-	80	20	20	120	4
2	Electronics & Telecom.	328812 (28)	VLSI Design	3	1	-	80	20	20	120	4
3	Electronics & Telecom.	328813 (28)	Industrial & Power Electronics	3	1	-	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	Electronics & Telecom.	328821 (28)	Optical Communication Lab	-	-	4	40	-	20	60	2
7	Electronics & Telecom.	328822 (28)	VLSI Design Lab	-	-	4	40	-	20	60	2
8	Electronics & Telecom.	328823 (28)	Digital Circuit Simulation Laboratory	-	-	4	40	-	20	60	2
9	Electronics & Telecom.	328824 (28)	Major Project	-	-	5	100	-	80	180	3
10	Electronics & Telecom.	300825 (28)	Report Writing & Seminar	-	-	2	-	-	40	40	1
11			Library	-	-	1	-	-	-	-	-
TOTAL				15	5	20	620	100	280	1000	30

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

Table -3
Professional Elective - III

Telecommunication Group:

Sl. No.	Board of Study	Code	Subject
1	Electronics & Telecom.	328871 (28)	Video Transmission & Reception
2	Electronics & Telecom.	328872 (28)	Radar Engineering & Navigational Aids
3	Electronics & Telecom.	328873 (28)	Information Theory & Coding

Allied Group:

Sl. No.	Board of Study	Code	Subject
1	Electronics & Telecom.	328874 (28)	DSP Processors & Applications
2	Electronics & Telecom.	328875 (28)	Micro-electronic Devices & VLSI Technology
3	Electronics & Telecom.	328876 (28)	Industrial Automation
4	Electronics & Telecom.	328877 (28)	Digital Image Processing

Note (1)- 1/4th of 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.

Open Elective -4			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300881 (36)	Enterprise Resource Planning
2	Information Technology	300882 (33)	E-Commerce & strategic IT
3	Management	300883 (36)	Technology Management
4	Information Technology	300884 (33)	Decision Support & Executive Information system
5	Computer Science & Engg.	300885 (22)	Software Technology
6	Management	300886 (36)	Knowledge Entrepreneurship
7	Management	300887 (36)	Finance Management
8	Management	300888 (36)	Project Planning, Management & Evaluation
9	Mechanical Engg.	300889 (37)	Safety Engineering
10	Computer Science & Engg.	300890 (22)	Bio Informatics
11	Mechanical Engg.	300891 (37)	Energy Conservation & Management
12	Nanotechnology	300892 (47)	Nanotechnology
13	Management	300893 (36)	Intellectual Property Rights
14	Mechanical Engg.	300894 (37)	Value Engineering
15	Civil Engg.	300895 (20)	Disaster Management
16	Civil Engg.	300896 (20)	Construction Management
17	Civil Engg.	300897 (20)	Ecology and Sustainable Development
18	Chem. Engg.	300898 (19)	Non Conventional Energy Sources
19	Electrical Engg.	300899 (24)	Energy Auditing and Management

Note (1)- 1/4th of 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.

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