QLM 1.3.1

Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum.

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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 Theory			Total Marks	Credit [L+[T+P]] 2
				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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Chhattisgarh Swami Vivekanand Technical University Bhilai (C.G.)

Semester: **Ist**
Subject: **Professional Communication in English**
Total Theory Periods: 50
Total Marks in End Semester Exam: 80
Minimum number of class tests to be conducted: 02

Branch: Common to All Branches
Code: 300111 (46)

Unit – I
Some Key Concepts
Process and Elements of Communication: context of communication; the speaker/writer and the listener/reader; Medium of communication; Principles of communication (7 C's of communication); Barriers in communication, effective communication; Communication in organization.

Unit – II
Writing
Selecting material for expository, descriptive, and argumentative pieces; Resume; covering letter, Elements of letter writing and style of writing, business letters: Quotation and Tenders; Basics of Informal and Formal Reports-technical report writing, lab report; Précis writing.

Unit – III
Reading
Effective Reading; reading different kinds of texts for different purposes; reading between the lines. Comprehension of Unseen Passages.

Grammar in use: Errors of Accidence and syntax with reference to Parts of Speech; Agreement of Subject and Verb; Tense and Concord; Use of connectives, Question tags. Voice and Narration. Indianism in English: Punctuation and Vocabulary, Building (Antonym, Synonym, Verbal Analogy and One Word Substitution).

Unit – IV
Speaking
Achieving desired clarity and fluency; effective speaking; task-oriented, inter-personal, informal and semi-formal speaking.
Meetings, Seminar, Conferences, Interviews, Presentation, Audio-visual communication.

Unit – V
Listening
Achieving ability to comprehend material delivered at relatively fast speed; comprehending spoken material in Standard Indian English, British English and American English; Intelligent listening in situations. Advantages of listening. Hearing and Listening; Essentials of Good Listening. Use of Modern Communication Devices; Telephonic Conversation.

Name of the Text Books:

- Sharma RC & Mohan K – "Business Corresponding and Report Writing", Tata McGraw Hill, New Delhi, 1994.
- Alok Jain, P S Bhatia & A M Shiekh – "Professional Communication Skills; S. Chand & Company Ltd. 2005.
- Rajendra Pal and JS Korlahalli – "Essentials of Business Communication", Sultan Chand & Sons, 1997.
- A guide to Correct English – Oxford University Press, Ely House, London W.I., Latest Edition. (For Unit III)

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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.

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:

(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-II will be taught to both the groups in the second semester.

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

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

Semester: **IInd**
Subject: **Environment & Ecology**
Total Theory Periods: 50
Total Marks in End Semester Exam: 80
Minimum number of class tests to be conducted: 02

Branch: Common to All Branches
Code: 300212 (20)

UNIT – I
General: Environmental segments, environmental degradation, environmental impact assessment.
Concept of Ecosystem: Fundamental of Ecology and Ecosystem, components of ecosystem, food-chain, food-web, trophic levels, energy flow, cycling of nutrients, major ecosystem types (forest, grass land and aquatic ecosystem).

UNIT – II
Air Pollution: Atmospheric composition, energy balance, classification of air pollutants, source and effect of pollutants – Primary (CO, SOx, NOx, particulates, hydrocarbons), Secondary [photochemical smog, acid rain, ozone, PAN (Peroxy Acetyl Nitrate)], green house effect, ozone depletion, atmospheric stability and temperature inversion, Techniques used to control gaseous and particulate pollution, ambient air quality standards.

UNIT – III
Water Pollution: Hydrosphere, natural water, classification of water pollutants, trace element contamination of water, sources and effect of water pollution, types of pollutants, determination and significance of D.O., B.O.D., C.O.D. in waste water, Eutrophication, methods and equipment used in waste water treatment preliminary, secondary and tertiary.

UNIT – IV
Land Pollution & Noise Pollution: Lithosphere, pollutants (agricultural, industrial, urban waste, hazardous waste), their origin and effect, collection of solid waste, solid waste management, recycling and reuse of solid waste and their disposal techniques (open dumping, sanitary land filling, thermal, composting).
Noise Pollution: Sources, effect, standards and control.

UNIT – V
Environmental Biotechnology: Definition, current status of biotechnology in environmental protection, bio-fuels, bio-fertilize, bio-surfactants, bio-sensor, bio-chips, bio-reactors.
Pollution Prevention through Biotechnology: Tannery industry, paper and pulp industry, pesticide industry, food and allied industry.

TEXT BOOKS:

1. Environment and Ecology by Piyush Kant Pandey and Dipti Gupta (Sum India Publication)
2. A Textbook of Environmental Chemistry and Pollution Control by S.S. Dara (S. Chand and Company)

REFERENCE BOOKS:

1. Masters, G.M. Introduction to Environment Engineering and Science (Prentice Hall of India).
2. Environmental Chemistry by A.K. Dey (Eastern Ltd.).
3. Environmental Chemistry by B.K. Sharma (Krishna Prakashan).
4. Nebel B.J. Environmental Science (Prentice Hall of India-1987).
5. Environmental Biotechnology by S.N. Jogdand (Himalaya Publishing House).
6. Introduction to Environmental Biotechnology by A.K. Chatterji (Prentice Hall of India).

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ChhattisgarhSwamiVivekanand Technical University, Bhilai
SCHEME OF TEACHING & EXAMINATION
BE (Computer Science & Engineering) III Semester

Sl.No.	Board of Study	Subject Code	Subject Name	Periods per week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Appl. Mathematics	322351(14)	Mathematics-III	4	1	-	80	20	20	120	5
2	Electronics & Telecom.	322352(28)	Basic Electronics	3	1	-	80	20	20	120	4
3	Comp. Science &Engg.	322353(22)	Computational Science	3	1	-	80	20	20	120	4
4	Comp. Science &Engg.	322354(22)	Problem Solving & Logic Building using C	3	1	-	80	20	20	120	4
5	Comp. Science &Engg.	322355(22)	Computer Concepts & Web Technology	3	1	-	80	20	20	120	4
6	Electronics & Telecom.	322356(28)	Digital Electronics & Logic Design	3	1	-	80	20	20	120	4
7	Electronics & Telecom.	322361(28)	Basic Electronics Lab	-	-	3	40		20	60	2
8	Comp. Science &Engg.	322362(22)	Problem Solving & Logic Building using C Lab	-	-	3	40		20	60	2
9	Electronics & Telecom.	322363(28)	Digital Electronic and Logic Design Lab	-	-	3	40		20	60	2
10	Comp. Science &Engg.	322364(22)	Web Technology Lab(HTML / DHTML/CSS/XML)	-	-	3	40		20	60	2
11	Humanities	322365(46)	Value Education	-	-	2			40	40	1
12			Library	-	-	1					
			TOTAL	**19**	**6**	**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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Computer Science & Engineering**	Semester:	**III**
Subject:	**Value Education**	Code:	**322365(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. This course is designed to provide the importance of education with why, what & how.
2. To impart students with an understanding of fundamental humanitarian viewpoint and its outcomes.
3. To provide the knowledge about whole existence and its impact on values.
4. To bring the awareness about life long exercise so that they can fulfill their responsibility towards themselves, the family, the society, the planet.

UNIT- I **Aim of Education and Necessity for Value Education:** Education in values/wisdom/etc and education in traits/technologies/etc as the two fundamental strands of education; Answer to the frequently asked questions such as "Why to do studies", "What studies to do in overall", "How to do studies in a proper way", "How to think systematically and talk systematically"

UNIT-II **Humanitarian Viewpoint and Basic Human Objective:** Meaning and concept of happiness, Need for a fundamental viewpoint to judge things in all cases of human concerns, Proposal of the natural path of humanitarian coexistentialism; Consciousness development and its expression; Fundamental want of sustainable happiness in human being; Understanding the distinct activities and needs of self (I) and body in human being; Fundamental goal of human being; Sustainable-solution in individual (At the place of delusion); Sustainable-prosperity in family (At the place of poverty); Sustainable-cooperation in society (At the place of competition); Sustainable-coexistence in planet (At the place of struggle)

UNIT- III **Elements of Holistic and Systematic Perspective:** Need for study of fundamental information categories to develop holistic perspective; Particular-time actions and general-time laws; Need for fundamental information sequence to develop systematic perspective; Some examples for systematic study sequence

UNIT-IV **Elements of Society-friendly and Environment-friendly Goals:** Elements of Knowledge of whole existence; Elements of Knowledge of human being; Elements of fundamental Values and Wisdom; Value spectrum with reference to general relationships and particular relationships of the objects in nature; Elements of History and Contemporarity used to set current goals; Elements of Sciences and Techniques to formulate methods to achieve goals; Elements of Motoricity and Mattericity to make actions to execute the methods

UNIT-V **Lifelong Exercise for All-round Sustainability:** Collecting information for sustainability issues; Motivating people towards sustainable life-style; Ability to identify and develop appropriate technologies and management patterns for society-friendly and environment-friendly systems for production /protection/ utilization/ experimentation ; Ability to establish and execute the fundamental five-fold system in order to ensure sustainable peace-and-prosperity worldwide.

Text Books:

Value Education for Consciousness Development by Dr P B Deshmukh, Radha K Iyer, and Deepak K Kaushik (2nd Edition, 2012, ISBN: 978-81-924034-0-3)

Reference Books:

1. International Research Handbook on Values Education and Student Wellbeing by Terence Lovat, Ron Toomey, Neville Clement (Eds.), Springer 2010, ISBN: 978-90481-86747
2. Values Education and Lifelong Learning: Principles, Policies, Programmes by David N Aspin and Judith D Chapman (Eds.); Springer 2007, ISBN: 978-1-4020-6183-7
3. Fundamentals of Ethics for Scientists and Engineers by E G Seebaur and Robert L Berry, 2000, Oxford University Press

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (ELECTRICAL ENGINEERING) III Semester

SLNo.	Board of Studies	Subject 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	324351(14)	Mathematics III	3	1		80	20	20	120	4
2	Electrical Engg.	324352(24)	Electrical Machines -I	4	1		80	20	20	120	5
3	Electrical & Electronics Engg.	324353(25)	Basic Electronics	3	1		80	20	20	120	4
4	Electrical & Electronics Engg.	324354(25)	Electric Circuits	3	1		80	20	20	120	4
5	Electrical Engg.	324355(24)	Electrical Engg. Material	3	1		80	20	20	120	4
6	Electrical Engg.	324356(24)	Electrical Power Generation	3	1		80	20	20	120	4
7	Electrical Engg.	324361(24)	Electrical Machines -I Lab			3	40		20	60	2
8	Electrical & Electronics Engg.	324362(24)	Basic Electronics Lab			3	40		20	60	2
9	Electrical & Electronics Engg.	324363(24)	Electrical Circuits Lab			3	40		20	60	2
10	Electrical Engg.	324364(24)	Electrical Workshop			3	40		20	60	2
11	Humanities	324365(46)	Value Education			2			40	40	1
12			Library			1					
Total				**19**	**6**	**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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Electrical Engineering**	Semester:	**III**
Subject:	**Value Education**	Code:	**324365(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. This course is designed to provide the importance of education with why, what & how.
2. To impart students with an understanding of fundamental humanitarian viewpoint and its outcomes.
3. To provide the knowledge about whole existence and its impact on values.
4. To bring the awareness about life long exercise so that they can fulfill their responsibility towards themselves, the family, the society, the planet.

UNIT- I **Aim of Education and Necessity for Value Education:** Education in values/wisdom/etc and education in traits/technologies/etc as the two fundamental strands of education; Answer to the frequently asked questions such as "Why to do studies", "What studies to do in overall", "How to do studies in a proper way", "How to think systematically and talk systematically"

UNIT-II **Humanitarian Viewpoint and Basic Human Objective:** Meaning and concept of happiness, Need for a fundamental viewpoint to judge things in all cases of human concerns, Proposal of the natural path of humanitarian coexistentialism; Consciousness development and its expression; Fundamental want of sustainable happiness in human being; Understanding the distinct activities and needs of self (I) and body in human being; Fundamental goal of human being; Sustainable-solution in individual (At the place of delusion); Sustainable-prosperity in family (At the place of poverty); Sustainable-cooperation in society (At the place of competition); Sustainable-coexistence in planet (At the place of struggle)

UNIT- III **Elements of Holistic and Systematic Perspective:** Need for study of fundamental information categories to develop holistic perspective; Particular-time actions and general-time laws; Need for fundamental information sequence to develop systematic perspective, Some examples for systematic study sequence

UNIT-IV **Elements of Society-friendly and Environment-friendly Goals:** Elements of Knowledge of whole existence; Elements of Knowledge of human being; Elements of fundamental Values and Wisdom; Value spectrum with reference to general relationships and particular relationships of the objects in nature; Elements of History and Contemporarity used to set current goals; Elements of Sciences and Techniques to formulate methods to achieve goals; Elements of Metoricity and Mattericity to make actions to execute the methods

UNIT-V **Lifelong Exercise for All-round Sustainability:** Collecting information for sustainability issues; Motivating people towards sustainable life-style; Ability to identify and develop appropriate technologies and management patterns for society-friendly and environment-friendly systems for production /protection/ utilization/ experimentation ; Ability to establish and execute the fundamental five-fold system in order to ensure sustainable peace-and-prosperity worldwide.

Text Books:

Value Education for Consciousness Development by Dr P B Deshmukh, Radha K Iyer, and Deepak K Kaushik (2nd Edition, 2012, ISBN: 978-81-924034-0-3)

Reference Books:

1. International Research Handbook on Values Education and Student Wellbeing by Terence Lovat, Ron Toomey, Neville Clement (Eds.), Springer 2010, ISBN: 978-90481-86747
2. Values Education and Lifelong Learning: Principles, Policies, Programmes by David N Aspin and Judith D Chapman (Eds.); Springer 2007, ISBN: 978-1-4020-6183-7
3. Fundamentals of Ethics for Scientists and Engineers by E G Seebauer and Robert L Berry, 2000, Oxford University Press

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CHHATTISGARH SWAMI VIVEKANAD TECHNICALUNIVERSITY, BHILAI
Scheme of Teaching & Examination
BE (Electronics &Telecommunication Engineering) III Semester

Sl. No.	Boardof Study	CodeNo.	Subjects	PeriodPer Week			Schemeof Exam			Total Marks	Credit L+(T+P)/2
							Theory/Practical				
				L	T	P	ESE	CT	TA		
1	Appl. Mathematics	328351(14)	Mathematics-III	4	1	-	80	20	20	120	5
2	Electronics &Telecom.	328352(28)	Probability and Random Variables	3	1	-	80	20	20	120	4
3	Electronics& Telecom.	328353(28)	Electronic Devices and Circuits	3	1	-	80	20	20	120	4
4	Electronics &Telecom.	328354(28)	Network Analysis& Synthesis	3	1	-	80	20	20	120	4
5	Electronics &Telecom.	328355(28)	Industrial Instrumentation	2	1	-	80	20	20	120	3
6	Electronics &Telecom.	328356(28)	Digital Logic Design	3	1	-	80	20	20	120	4
7	Electronics &Telecom.	328361(28)	Electronic Devices and Circuits Lab	-	-	3	40	-	20	60	2
8	Electronics &Telecom.	328362(28)	Industrial Instrumentation Lab	-	-	3	40	-	20	60	2
9	Electronics &Telecom.	328363(28)	Digital Logic Design Lab	-	-	4	40	-	20	60	2
10	Electronics &Telecom.	328364(28)	Electronics Workshop	-	-	3	40	-	20	60	1
11	Humanities	328365(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 Exam, CT: Class Test, TA: Teachers Assessment
Note: Duration of all theory papers will be of Three Hours.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Electronics &Telecommunication**	Semester:	**III**
Subject:	**Value Education**	Code:	**328365(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. This course is designed to provide the importance of education with why, what & how.
2. To impart students with an understanding of fundamental humanitarian viewpoint and its outcomes.
3. To provide the knowledge about whole existence and its impact on values.
4. To bring the awareness about life long exercise so that they can fulfill their responsibility towards themselves, the family, the society, the planet.

UNIT- I **Aim of Education and Necessity for Value Education:** Education in values/wisdom/etc and education in traits/technologies/etc as the two fundamental strands of education; Answer to the frequently asked questions such as "Why to do studies", "What studies to do in overall", "How to do studies in a proper way", "How to think systematically and talk systematically"

UNIT-II **Humanitarian Viewpoint and Basic Human Objective:** Meaning and concept of happiness, Need for a fundamental viewpoint to judge things in all cases of human concerns, Proposal of the natural path of humanitarian coexistentialism; Consciousness development and its expression; Fundamental want of sustainable happiness in human being; Understanding the distinct activities and needs of self (I) and body in human being; Fundamental goal of human being; Sustainable-solution in individual (At the place of delusion); Sustainable-prosperity in family (At the place of poverty); Sustainable-cooperation in society (At the place of competition); Sustainable-coexistence in planet (At the place of struggle)

UNIT- III **Elements of Holistic and Systematic Perspective:** Need for study of fundamental information categories to develop holistic perspective; Particular-time actions and general-time laws; Need for fundamental information sequence to develop systematic perspective, Some examples for systematic study sequence

UNIT-IV **Elements of Society-friendly and Environment-friendly Goals:** Elements of Knowledge of whole existence; Elements of Knowledge of human being; Elements of fundamental Values and Wisdom; Value spectrum with reference to general relationships and particular relationships of the objects in nature; Elements of History and Contemporarity used to set current goals; Elements of Sciences and Techniques to formulate methods to achieve goals; Elements of Motoricity and Mattericity to make actions to execute the methods

UNIT-V **Lifelong Exercise for All-round Sustainability:** Collecting information for sustainability issues; Motivating people towards sustainable life-style; Ability to identify and develop appropriate technologies and management patterns for society-friendly and environment-friendly systems for production/protection/utilization/experimentation; Ability to establish and execute the fundamental five-fold system in order to ensure sustainable peace-and-prosperity worldwide.

Text Books:

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Reference Books:

1. International Research Handbook on Values Education and Student Wellbeing by Terence Lovat, Ron Toomey, Neville Clement (Eds.), Springer 2010, ISBN: 978-90481-86747
2. Values Education and Lifelong Learning: Principles, Policies, Programmes by David N Aspin and Judith D Chapman (Eds.); Springer 2007, ISBN: 978-1-4020-6183-7
3. Fundamentals of Ethics for Scientists and Engineers by E G Seebauer and Robert L Berry, 2000, Oxford University Press

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (MECHANICAL ENGINEERING) 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.**

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Mechanical Engineering**	Semester:	**III**
Subject:	**Value Education**	Code:	**337365(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. This course is designed to provide the importance of education with why, what & how.
2. To impart students with an understanding of fundamental humanitarian viewpoint and its outcomes.
3. To provide the knowledge about whole existence and its impact on values.
4. To bring the awareness about life long exercise so that they can fulfill their responsibility towards themselves, the family, the society, the planet.

UNIT- I **Aim of Education and Necessity for Value Education:** Education in values/wisdom/etc and education in traits/technologies/etc as the two fundamental strands of education; Answer to the frequently asked questions such as "Why to do studies", "What studies to do in overall", "How to do studies in a proper way", "How to think systematically and talk systematically"

UNIT-II **Humanitarian Viewpoint and Basic Human Objective:** Meaning and concept of happiness; Need for a fundamental viewpoint to judge things in all cases of human concerns; Proposal of the natural path of humanitarian coexistentialism; Consciousness development and its expression; Fundamental want of sustainable happiness in human being; Understanding the distinct activities and needs of self (I) and body in human being; Fundamental goal of human being; Sustainable-solution in individual (At the place of delusion); Sustainable-prosperity in family (At the place of poverty); Sustainable-cooperation in society (At the place of competition); Sustainable-coexistence in planet (At the place of struggle)

UNIT- III **Elements of Holistic and Systematic Perspective:** Need for study of fundamental information categories to develop holistic perspective; Particular-time actions and general-time laws; Need for fundamental information sequence to develop systematic perspective, Some examples for systematic study sequence

UNIT-IV **Elements of Society-friendly and Environment-friendly Goals:** Elements of Knowledge of whole existence; Elements of Knowledge of human being; Elements of fundamental Values and Wisdom; Value spectrum with reference to general relationships and particular relationships of the objects in nature; Elements of History and Contemporarity used to set current goals; Elements of Sciences and Techniques to formulate methods to achieve goals; Elements of Motoricity and Mattericity to make actions to execute the methods

UNIT-V **Lifelong Exercise for All-round Sustainability:** Collecting information for sustainability issues; Motivating people towards sustainable life-style; Ability to identify and develop appropriate technologies and management patterns for society-friendly and environment-friendly systems for production /protection/ utilization/ experimentation ; Ability to establish and execute the fundamental five-fold system in order to ensure sustainable peace-and-prosperity worldwide.

Text Books:

Value Education for Consciousness Development by Dr P B Deshmukh, Radha K Iyer, and Deepak K Kaushik (2nd Edition, 2012, ISBN: 978-81-924034-0-3)

Reference Books:

1. International Research Handbook on Values Education and Student Wellbeing by Terence Lovat, Ron Toomey, Neville Clement (Eds.), Springer 2010, ISBN: 978-90481-86747
2. Values Education and Lifelong Learning: Principles, Policies, Programmes by David N Aspin and Judith D Chapman (Eds.); Springer 2007, ISBN: 978-1-4020-6183-7
3. Fundamentals of Ethics for Scientists and Engineers by E G Seebauer and Robert L Berry, 2000, Oxford University Press

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching & Examination

BE (Computer Science & Engineering) IV Semester

Sr No.	Board of Study	Subject Code	Subject Name	Periods per week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
							Theory/Practical				
				L	T	P	ESE	CT	TA		
1	Appl. Mathematics	322451(14)	Computational Mathematics	4	1		80	20	20	120	5
2	Appl. Mathematics	322452(14)	Discrete Structures	3	1		80	20	20	120	4
3	Comp. Science &Engg.	322453(22)	Data Structures	3	1		80	20	20	120	4
4	Comp. Science &Engg.	322454(22)	Computer Systems Architecture	3	1		80	20	20	120	4
5	Comp. Science &Engg.	322455(22)	Object Oriented Concepts & Programming using C++	3	1		80	20	20	120	4
6	Comp. Science &Engg.	322456(22)	Operating System	3	1		80	20	20	120	4
7	Comp. Science &Engg.	322461(22)	Data Structures Lab			3	40		20	60	2
8	Comp. Science &Engg.	322462(22)	Computer Hardware Maintenance Lab			3	40		20	60	2
9	Comp. Science &Engg.	322463(22)	Object Oriented Concepts Programming using C++ Lab			3	40		20	60	2
10	Comp. Science &Engg.	322464(22)	GUI programming (VB/Gambus/ Other tools)			3	40		20	60	2
11	Humanities	322465(46)	Health , Hygiene and Yoga			2			40	40	1
12			Library			1					
			TOTAL	19	6	15	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 sem. after which students have to submit a training report which will be evaluated by the college teachers during B.E. V SEM

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Computer Science & Engineering**	Semester:	**IV**
Subject:	**Health, Hygiene & Yoga**	Code:	**322465(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. To provide understanding the importance of health.
2. To provide insight into the hygiene aspect & quality of life.
3. To study the concepts of various medical therapy.
4. To practice the various yogasans.
5. To provide knowledge about common diseases and its cure through yogasans and pranayam.
6. To develop concentration through various methods.

UNIT- I **HEALTH & HYGIENE:** Concept of health, Physical health and mentall health and wellbeing and how to achieve these, longevity and how to achieve it, concept and common rules of hygiene, cleanliness and its relation with hygiene; Overeating and underrating, amount of food intake required, intermittent fasting; adequate physical labour, sleep; consumption of junk fast food vs nutritious food; fruits, vegetables cereals and qualities of each of these.

UNIT-II **INTRODUCTORY KNOWLEDGE OF COMMON STREAMS OF MEDICINAL CURE:** History, development, basic concepts, modes of operation of Alopathy, Ayurved, Homoeopathy, Biochemic, Unani, Siddha, Accurpressure, Accupunture, Naturopathy, Yogic and Herbal system of medicines, Introduction of Anatomy and Physiology concerned.

UNIT- III **YOGASANS:** Meaning and concept of Yoga, Yogasans and its mode of operation, How to perform Yogasans, Common Yogasans with their benefits, such as, Padahastasan, Sarvangasan, Dhanurasan, Chakrasan, Bhujangasan, Paschimottasan, Gomukhasan, Mayurasan, Matsyasan, Matsyendrasan, Pawanmuktasan, Vajrasan, Shalabhasan, Sinhasan, Shashankasan, Surya Namaskar, Halasan, Janushirasan, Ushtrasan Mudra.

UNIT-IV **YOGASANS FOR COMMON DISEASES:** From Yogic MateriaMedica with symptoms, causes, asans and herbal treatment.

- **Modern silent killers:** High blood pressure, diabetes and cancer, causes and cure; Common health problems due to stomache disorders, such as, indigestion, acidity, dycentry, piles and fissures, arthritis, its causes, prevention and cure.
- **Asans for relaxation:** Shavasan, Makarasan, Matsyakridasan, Shashankasan.
- **Asans to increase memory and blood supply to brain:** Shirshpadasan, Shashankasan.
- **Asans for eye sight:** Tratak, NetiKriya .
- **Pranayam:** Definition and types: NadiShodhan, Bhastrik, Shitakari, Bhramari useful for students.

UNIT-V **CONCENTRATION:** Concentration of mind and how to achieve it. Tratak (त्राटक). Concentration on breath, Japa (जप), Ajapajap (अजपाजप), internal silence (अन्तर्मौन), visualization in mental sky (चिदाकाश धारणा), Concentration on point of light (ज्योति धारणा), Concentration on feeling (भाव धारणा) Concentration on figure (मूर्ति धारणा).

Text Books:

Health, Hygiene & Yoga,Dr P B Deshmukh, Gyan Book Pvt Ltd. New Delhi.

Reference Books:

(1) Yogic MateriaMedica
(2) Asan, Pranayam and Bandh.

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Chhattisgarh Swami Vivekananda Technical University,Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (ELECTRICAL ENGINEERING) IV SEMESTER

S.No.	Board of Studies	Subject Code	Subject	Periods per week			Scheme of Exam Theory / Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Electrical & ElectronicsEngg.	324451(25)	Analog Electronics	3	1		80	20	20	120	4
2	Electrical Engg.	324452(24)	Electro Magnetic Theory	3	1		80	20	20	120	4
3	Electrical & ElectronicsEngg.	324453(25)	Network Analysis & Synthesis	3	1		80	20	20	120	4
4	Electrical & ElectronicsEngg.	324454(25)	Digital Electronics & Logic Design	3	1		80	20	20	120	4
5	Electrical Engg.	324455(24)	Electrical Power Systems	3	1		80	20	20	120	4
6	Electrical Engg.	324456(24)	Electrical Measurements & Measuring Instruments	3	1		80	20	20	120	4
7	Electrical & ElectronicsEngg.	324461(24)	Analog Electronics Lab			3	40		20	60	2
8	Electrical & Electronics Engg.	324462(24)	Digital Electronics and Logic Design Lab			3	40		20	60	2
9	Electrical Engg.	324463(24)	Electrical Power Systems I Lab			3	40		20	60	2
10	Electrical Engg.	324464(24)	Electrical Measurements & Measuring Instruments Lab			3	40		20	60	2
11	Humanities etc.	324465(46)	Health, Hygiene & Yoga			2			40	40	1
12			Library			1					
	Total			18	6	15	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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Electrical Engineering**	Semester:	**IV**
Subject:	**Health, Hygiene & Yoga**	Code:	**324465(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. To provide understanding the importance of health.
2. To provide insight into the hygiene aspect & quality of life.
3. To study the concepts of various medical therapy.
4. To practice the various yogasans.
5. To provide knowledge about common diseases and its cure through yagasans and pranayam.
6. To develop concentration through various methods.

UNIT- I **HEALTH & HYGIENE:** Concept of health, Physical health and mentall health and wellbeing and how to achieve these, longevity and how to achieve it, concept and common rules of hygiene, cleanliness and its relation with hygiene; Overeating and underrating, amount of food intake required, intermittent fasting; adequate physical labour, sleep; consumption of junk fast food vs nutritious food; fruits, vegetables cereals and qualities of each of these.

UNIT-II **INTRODUCTORY KNOWLEDGE OF COMMON STREAMS OF MEDICINAL CURE:** History, development, basic concepts, modes of operation of Aleopathy, Ayurved, Homoeopathy, Biochemic, Unani, Siddha, Accurpressure, Accupunture, Naturopathy, Yogic and Herbal system of medicines, Introduction of Anatomy and Physiology concerned.

UNIT- III **YOGASANS:** Meaning and concept of Yoga, Yogasans and its mode of operation, How to perform Yogasans, Common Yogasans with their benefits, such as, Padahastasan, Sarvangasan, Dhanurasan, Chakrasan, Bhujangasan, Paschimottasan, Gomukhasan, Mayurasan, Matsyasan, Matsyendrasan, Parwatmuktasan, Vajrasan, Shalabhasan, Sinhasan, Shashankasan, Surya Namaskar, Halasan, Janushirasan, Utshep Mudra.

UNIT-IV **YOGASANS FOR COMMON DISEASES:** From Yogic MateriaMedica with symptoms, causes, asans and herbal treatment.

- **Modern silent killers:** High blood pressure, diabetes and cancer, causes and cure; Common health problems due to stomache disorders, such as, indigestion, acidity, dycentry, piles and fissures, artheritis, its causes, prevention and cure.
- **Asans for relaxation:**Shavasan, Makarasan, Matsyakridasan, Shashankasan.
- **Asans to increase memory and blood supply to brain:**Shirshpadasan, Shashankasan.
- **Asans for eye sight:**Tratak, NetiKriya .
- **Pranayam:** Definition and types: NadiShodhan, Bhastrik, Shitakari, Bhramari useful for students.

UNIT-V **CONCENTRATION:** Concentration of mind and how to achieve it. Tratak (त्राटक). Concentration on breath, Japa (जप), Ajapajap (अजपाजप), internal silence (अन्तर्मौन), visualization in mental sky (चिदाकाश धारणा), Concentration on point of light (ज्योति धारणा). Concentration on feeling (भाव धारणा). Concentration on figure (मूर्त धारणा).

Text Books:

Health, Hygiene & Yoga,Dr P B Deshmukh, Gyan Book Pvt Ltd. New Delhi.

Reference Books:

(1) Yogic MateriaMedica
(2) Asan, Pranayam and Bandh.

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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
							Theory/Practical				
				L	T	P	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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Electronics & Telecommunication Engineering**	Semester:	**IV**
Subject:	**Health, Hygiene & Yoga**	Code:	**328465(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. To provide understanding the importance of health.
2. To provide insight into the hygiene aspect & quality of life.
3. To study the concepts of various medical therapy.
4. To practice the various yogasans.
5. To provide knowledge about common diseases and its cure through yagasans and pranayam.
6. To develop concentration through various methods.

UNIT- I **HEALTH & HYGIENE:** Concept of health, Physical health and mentall health and wellbeing and how to achieve these, longevity and how to achieve it, concept and common rules of hygiene, cleanliness and its relation with hygiene; Overeating and undereating, amount of food intake required, intermittent fasting; adequate physical labour, sleep; consumption of junk fast food vs nutritious food; fruits, vegetables cereals and qualities of each of these.

UNIT-II **INTRODUCTORY KNOWLEDGE OF COMMON STREAMS OF MEDICINAL CURE:** History, development, basic concepts, modes of operation of Alopathy, Ayurved, Homoeopathy, Biochemic, Unani, Siddha, Accurpressure, Accupunture, Naturopathy, Yogic and Herbal system of medicines, Introduction of Anatomy and Physiology concerned.

UNIT- III **YOGASANS:** Meaning and concept of Yoga, Yogasans and its mode of operation, How to perform Yogasans, Common Yogasans with their benefits, such as, Padahastasan, Sarvangasan, Dhanurasan, Chakrasan, Bhujangasan, Paschimottasan, Gomukhasan, Mayurasan, Matsyasan, Matsyendrasan, Pawanmuktasan, Vajrasan, Shalabhasan, Sinhasan, Shashankasan, Surya Namaskar, Halasan, Janushirasan, Utshep Mudra.

UNIT-IV **YOGASANS FOR COMMON DISEASES:** From Yogic MateriaMedica with symptoms, causes, asans and herbal treatment.

- **Modern silent killers:** High blood pressure, diabetes and cancer, causes and cure; Common health problems due to stomache disorders, such as, indigestion, acidity, dycentry, piles and fissures, artheritis, its causes, prevention and cure.
- **Asans for relaxation:** Shavasan, Makarasan, Matsyakridasan, Shashankasan.
- **Asans to increase memory and blood supply to brain:** Shirshpadasan, Shashankasan.
- **Asans for eye sight:** Tratak, NetiKriya .
- **Pranayam:** Definition and types: NadiShodhan, Bhastrik, Shitakari, Bhramari useful for students.

UNIT-V **CONCENTRATION:** Concentration of mind and how to achieve it. Tratak (त्राटक), Concentration on breath, Japa (जप), Ajapajap (अजपाजप), internal silence (अन्तर्मौन), visualization in mental sky (चिदाकाश धारणा), Concentration on point of light (ज्योति धारणा), Concentration on feeling (भाव धारणा), Concentration on figure (मूर्त धारणा).

Text Books:

Health, Hygiene & Yoga,Dr P B Deshmukh, Gyan Book Pvt Ltd. New Delhi.

Reference Books:

(1) Yogic MateriaMedica
(2) Asan, Pranayam and Bandh.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

BE (MECHANICAL ENGINEERING) 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	337452(37)	Mechanics of Solids-II	4	1	-	80	20	20	120	5
3.	Mech. Engg	337453(37)	Applied Thermodynamics	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 Lab	-	-	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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program:	**Bachelor of Engineering**		
Branch:	**Mechanical Engineering**	Semester:	**IV**
Subject:	**Health, Hygiene & Yoga**	Code:	**3374651(46)**
No. Of Periods:	**2 Periods/Week**	Total Tutorial Periods:	**NIL**
Maximum Marks:	**40**	**Minimum Marks:**	**24**

Course Objectives:

1. To provide understanding the importance of health.
2. To provide insight into the hygiene aspect & quality of life.
3. To study the concepts of various medical therapy.
4. To practice the various yogasans.
5. To provide knowledge about common diseases and its cure through yagasans and pranayam.
6. To develop concentration through various methods.

UNIT- I **HEALTH & HYGIENE:** Concept of health, Physical health and mentall health and wellbeing and how to achieve these, longevity and how to achieve it, concept and common rules of hygiene, cleanliness and its relation with hygiene; Overeating and undereating, amount of food intake required, intermittent fasting; adequate physical labour, sleep; consumption of junk fast food vs nutritious food; fruits, vegetables cereals and qualities of each of these.

UNIT-II **INTRODUCTORY KNOWLEDGE OF COMMON STREAMS OF MEDICINAL CURE:** History, development, basic concepts, modes of operation of Allopathy, Ayurved, Homoeopathy, Biochemic, Unani, Siddha, Accurpressure, Accupunture, Naturopathy, Yogic and Herbal system of medicines, Introduction of Anatomy and Physiology concerned.

UNIT- III **YOGASANS:** Meaning and concept of Yoga, Yogasans and its mode of operation, How to perform Yogasans, Common Yogasans with their benefits, such as, Padahastasan, Sarvangasan, Dhanurasan, Chakrasan, Bhujangasan, Paschimottasan, Gomukhasan, Mayurasan, Matsyasan, Matsyendrasan, Pawanmuktasan, Vajrasan, Shalabhasan, Sinhasan, Shashankasan, Surya Namaskar, Halasan, Janushirasan, Ushtra Mudra.

UNIT-IV **YOGASANS FOR COMMON DISEASES:** From Yogic Materia Medica with symptoms, causes, asans and herbal treatment.

- **Modern silent killers:** High blood pressure, diabetes and cancer, causes and cure; Common health problems due to stomache disorders, such as, indigestion, acidity, dycentry, piles and fissures, arthritis, its causes, prevention and cure.
- **Asans for relaxation:** Shavasan, Makarasan, Matsyakridasan, Shashankasan.
- **Asans to increase memory and blood supply to brain:** Shirsh padasan, Shashankasan.
- **Asans for eye sight:** Tratak, Neti Kriya .
- **Pranayam:** Definition and types: Nadi Shodhan, Bhastrik, Shitakari, Bhramari useful for students.

UNIT-V **CONCENTRATION:** Concentration of mind and how to achieve it. Tratak (त्राटक). Concentration on breath, Japa (जप). Ajapajap (अजपाजप). internal silence (अन्तर्मौन), visualization in mental sky (चिदाकाश धारणा). Concentration on point of light (ज्योति धारणा). Concentration on feeling (भाव धारणा). Concentration on figure (मूर्ति धारणा).

Text Books:

Health, Hygiene & Yoga, Dr P B Deshmukh, Gyan Book Pvt Ltd. New Delhi.

Reference Books:

(1) Yogic Materia Medica
(2) Asan, Pranayam and Bandh.

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Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)
Scheme of Teaching and Examination
B.E. V Semester (Computer Science &Engineering)

S. No	Board of Study	Subject Code	Subject Name	Periods per week			Scheme of Exam Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Computer Science & Engg	322551(22)	Microprocessor and Interfaces	4	1	-	80	20	20	120	5
2	Computer Science & Engg	322552(22)	Analysis and Design of Algorithms	3	1	-	80	20	20	120	4
3	Computer Science & Engg	322553(22)	Programming in Java	3	1	-	80	20	20	120	4
4	Computer Science & Engg	322554(22)	Theory of Computation	3	1	-	80	20	20	120	4
5	Computer Science & Engg	322555(22)	Unix & Shell Programming	3	1	-	80	20	20	120	4
6	Computer Science & Engg	322556(22)	Database Management System	3	1	-	80	20	20	120	4
7	Computer Science & Engg	322561(22)	Microprocessor and Interfaces Lab	-	-	3	40		20	60	2
8	Computer Science & Engg	322562(22)	Programming in Java Lab	-	-	3	40		20	60	2
9	Computer Science & Engg	322563(22)	Unix & Shell Programming Lab	-	-	3	40		20	60	2
10	Computer Science & Engg	322564(22)	DBMS Lab	-	-	3	40		20	60	2
11	Humanities	300565(46)	Personality Development	-	-	2			20	20	1
12	Computer Science & Engg	322566(22)	* Practical Training Evaluation & Library	-	-	1			20	20	1
			TOTAL	19	6	15	640	120	240	1000	35

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

**To be completed after IV Semester and before the commencement of V Semester*

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**V**
Subject:	**Personality Development**	Code:	**300565 (46)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**20**

Minimum number of Class Tests to be conducted: **Two**

Objective: The course is introduced to develop one's outer and inner personality tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Personality Development is essential for overall development of an individual apart from gaining technical knowledge in the subject.

Course Objectives

Upon completion of this course, the student shall be able:

- To understand the concept of personality and image;
- To develop leadership, listening and interacting skills;
- To develop attitudinal changes;
- To develop decision-making qualities; and
- To communication skill.

UNIT I **Personality concepts:** What is Personality – its physical and psychic aspects. How to develop a positive self-image. How to aim at Excellence. How to apply the cosmic laws that govern life and personality. How to improve Memory – How to develop successful learning skills. How to develop and effectively use one's creative power. How to apply the individual MOTIVATORS that make you a self-power personality.

UNIT II **Interpersonal Skills:** Leadership: Leaders who make a difference, Leadership: your idea, What do we know about leadership? If you are serious about Excellence. Concepts of leadership, Two important keys to effective leadership, Principles of leadership, Factors of leadership, Attributes. Listening: Listening skills, How to listen, Saying a lot- just by listening, The words and the music, How to talk to a disturbed person, Listening and sometimes challenging. How to win friends and influence people, How to get along with others. How to develop art of convincing others. How can one make the difference. How to deal with others particularly elders. Conflicts and cooperation.

UNIT III **Attitudinal Changes: Meaning of attitude,** benefits of positive attitudes, How to develop the habit of positive thinking.

Negative attitude and wining: What is FEAR and how to win it. How to win loneliness. How to win over FAILURE. How to win over PAIN. How to win over one's ANGER and others anger. What is stress and how to cope up with it? The art of self-motivation. How to acquire mental well-being. How to acquire physical well-being.

UNIT IV **Decision Making:** How to make your own LUCK. How to plan goals/objectives and action plan to achieve them. How to make RIGHT DECISION and overcome problems. How to make a Decision. Decision making: A question of style. Which style, when? People decisions: The key decisions. What do we know about group decision making? General aids towards improving group decision making.

UNIT V **Communication Skills: Public Speaking:** Importance of Public speaking for professionals. The art of Speaking - Forget the fear of presentation, Symptoms of stage fear, Main reason for speech failure, Stop failures by acquiring Information; Preparation & designing of speech, Skills to impress in public speaking & Conversation, Use of presentation aids & media.

Study & Examination: How to tackle examination, How to develop successful study skills.

Group discussions: Purpose of GD, What factors contribute to group worthiness, Roles to be played in GD.

Course Outcomes:

- The students will be able to develop inner and outer personality exposure;
- The students will be able to develop effective leadership qualities and interacting skills;
- The students will be able to develop positive attitude, motivating skills and develop winning philosophies;
- The students will be able to develop decision-making tools; and
- The students will be able to develop group presentation, public speaking and impressive conversation.

Text Books:

1. Basic Managerial Skills for all by E. H. McGrawth, prentice Hall India Pvt. Ltd., 2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:

1. How to Develop a Pleasing Personality by Atul John Rego, Better Yourself Books, Mumbai, 2000
2. How to Succeed by Brain Adams, Better Yourself Books, Mumbai, 1969
3. Personality: Classic Theories & Modern Research; Friedman ; Pearson Education, 2006
4. How to Win Friends and Influence People by Dale Carnegie, A. H. Wheeler 2006

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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	3285551(28)	Linear Integrated Circuits &Applications	3	1	-	80	20	20	120	4
2	Electronics & Telecommunication	3285552(28)	Data Structures and Programming with C++	3	1	-	80	20	20	120	4
3	Electronics & Telecommunication	3285553(28)	Antennas and Wave Propagation	3	1	-	80	20	20	120	4
4	Electronics & Telecommunication	3285554(28)	Digital Communication	3	1	-	80	20	20	120	4
5	Electronics & Telecommunication	3285555(28)	Advanced Microprocessor and Interfacing	3	1	-	80	20	20	120	4
6	Electronics & Telecommunication	3285556(28)	Automatic Control System	3	1	-	80	20	20	120	4
7	Electronics & Telecommunication	3285561(28)	Linear Integrated Circuits &Applications Lab	-	-	3	40	-	20	60	2
8	Electronics & Telecommunication	3285562(28)	Data Structures and Programming with C++ Lab	-	-	4	40	-	20	60	2
9	Electronics & Telecommunication	3285563(28)	Digital Communication Lab	-	-	4	40	-	20	60	2
10	Electronics & Telecommunication	3285564(28)	Advanced Microprocessor and Interfacing Lab	-	-	2	40	-	20	60	1
11	Humanities	3085651(46)	Personality Development	-	-	2	-	-	20	20	1
12	Electronics & Telecommunication	3285566(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.*

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	Bachelor of Engineering		
Branch:	Common to All Branches	Semester:	V
Subject:	Personality Development	Code:	300565 (28)
No. of Lectures:	2/Week	Tutorial Period:	NIL
Total Marks in ESE:	NIL	Marks in TA:	20
Minimum number of Class Tests to be conducted:	Two		

Objective: The course is introduced to develop one's outer and inner personality tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Personality Development is essential for overall development of an individual apart from gaining technical knowledge in the subject.

Course Objectives

Upon completion of this course, the student shall be able

- To understand the concept of personality and image;
- To develop leadership, listening and interacting skills;
- To develop attitudinal changes;
- To develop decision-making qualities; and
- To communication skill.

UNIT I **Personality concepts:** What is Personality – its physical and psychic aspects. How to develop a positive self-image. How to aim at Excellence. How to apply the cosmic laws that govern life and personality. How to improve Memory – How to develop successful learning skills. How to develop and effectively use one's creative power. How to apply the individual MOTIVATORS that make you a self-power personality.

UNIT II **Interpersonal Skills:** Leadership: Leaders who make a difference, Leadership: your idea, What do we know about leadership? If you are serious about Excellence. Concepts of leadership, Two important keys to effective leadership, Principles of leadership, Factors of leadership, Attributes. Listening: Listening skills, How to listen, Saying a lot- just by listening, The words and the music, How to talk to a disturbed person, Listening and sometimes challenging. How to win friends and influence people, How to get along with others. How to develop art of convincing others. How can one make the difference. How to deal with others particularly elders. Conflicts and cooperation.

UNIT III **Attitudinal Changes: Meaning of attitude,** benefits of positive attitudes, How to develop the habit of positive thinking.

Negative attitude and wining: What is FEAR and how to win it. How to win loneliness. How to win over FAILURE. How to win over PAIN. How to win over one's ANGER and others anger. What is stress and how to cope up with it? The art of self-motivation. How to acquire mental well-being. How to acquire physical well-being.

UNIT IV **Decision Making:** How to make your own LUCK. How to plan goals/objectives and action plan to achieve them. How to make RIGHT DECISION and overcome problems. How to make a Decision. Decision making: A question of style. Which style, when? People decisions: The key decisions. What do we know about group decision making? General aids towards improving group decision making.

UNIT V **Communication Skills: Public Speaking:** Importance of Public speaking for professionals. The art of Speaking - Forget the fear of presentation, Symptoms of stage fear, Main reason for speech failure, Stop failures by acquiring Information; Preparation & designing of speech, Skills to impress in public speaking & Conversation, Use of presentation aids & media.

Study & Examination: How to tackle examination, How to develop successful study skills.

Group discussions: Purpose of GD, What factors contribute to group worthiness, Roles to be played in GD.

Course Outcomes:

- The students will be able to develop inner and outer personality exposure;
- The students will be able to develop effective leadership qualities and interacting skills;
- The students will be able to develop positive attitude, motivating skills and develop winning philosophies;
- The students will be able to develop decision-making tools; and
- The students will be able to develop group presentation, public speaking and impressive conversation.

Text Books:

1. Basic Managerial Skills for all by E. H. McGrawth, prentice Hall India Pvt. Ltd., 2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:

1. How to Develop a Pleasing Personality by Arul John Rego, Better Yourself Books, Mumbai, 2000
2. How to Succeed by Brain Adams, Better Yourself Books, Mumbai, 1989
3. Personality: Classic Theories & Modern Research; Friedman ; Pearson Education, 2006
4. How to Win Friends and Influence People by Dale Carnigie, A. H. Wheeler 2006

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

SCHEME OF TEACHING AND EXAMINATION

B.E. V SEMESTER MECHANICAL ENGINEERING

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	337551 (37)	Machine Design – I	4	1	-	80	20	20	120	5
2.	Mech. Engg	337552 (37)	Turbo Machinery	4	1	-	80	20	20	120	5
3.	Mech. Engg	337553 (37)	Dynamics of Machines	4	1	-	80	20	20	120	5
4.	Mech. Engg	337554 (37)	Fluid Machinery	4	1	-	80	20	20	120	5
5.	Mech. Engg	337555 (37)	Manufacturing Science - II	3	1	-	80	20	20	120	4
6.	Mech. Engg	337556 (37)	Operations Research	4	1	-	80	20	20	120	5
7.	Mech. Engg	337561 (37)	Machine Design-I Lab	-	-	2	40	-	20	60	1
8.	Mech. Engg	337562 (37)	Manufacturing Science Lab	-	-	2	40	-	20	60	1
9.	Mech. Engg	337563 (37)	Dynamics of machines Lab	-	-	2	40	-	20	60	1
10.	Mech. Engg	337564 (37)	Fluid Machinery Lab	-	-	2	40	-	20	60	1
11.	Humanities	300565 (46)	Personality Development	-	-	2	-	-	20	20	1
12.	Mech. Engg	337566 (37)	*Practical Training Evaluation/Library	-	-	1	-	-	20	20	1
Total				23	6	11	640	120	240	1000	35

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**V**
Subject:	**Personality Development**	Code:	**300566 (46)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**20**

Minimum number of Class Tests to be conducted: **Two**

Objective: The course is introduced to develop one's outer and inner personality tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Personality Development is essential for overall development of an individual apart from gaining technical knowledge in the subject.

Course Objectives

Upon completion of this course, the student shall be able

- To understand the concept of personality and image;
- To develop leadership, listening and interacting skills;
- To develop attitudinal changes;
- To develop decision-making qualities; and
- To communication skill.

UNIT I **Personality concepts:** What is Personality – its physical and psychic aspects. How to develop a positive self-image. How to aim at Excellence. How to apply the cosmic laws that govern life and personality. How to improve Memory – How to develop successful learning skills. How to develop and effectively use one's creative power. How to apply the individual MOTIVATORS that make you a self-power personality.

UNIT II **Interpersonal Skills:** Leadership: Leaders who make a difference, Leadership: your idea, What do we know about leadership? If you are serious about Excellence. Concepts of leadership, Two important keys to effective leadership, Principles of leadership, Factors of leadership, Attributes. Listening: Listening skills, How to listen, Saying a lot- just by listening, The words and the music, How to talk to a disturbed person, Listening and sometimes challenging. How to win friends and influence people, How to get along with others. How to develop art of convincing others. How can one make the difference. How to deal with others particularly elders. Conflicts and cooperation.

UNIT III **Attitudinal Changes: Meaning of attitude,** benefits of positive attitudes, How to develop the habit of positive thinking.

Negative attitude and wining: What is FEAR and how to win it. How to win loneliness. How to win over FAILURE. How to win over PAIN. How to win over one's ANGER and others anger. What is stress and how to cope up with it? The art of self-motivation. How to acquire mental well-being. How to acquire physical well-being.

UNIT IV **Decision Making:** How to make your own LUCK. How to plan goals/objectives and action plan to achieve them. How to make RIGHT DECISION and overcome problems. How to make a Decision. Decision making: A question of style. Which style, when? People decisions: The key decisions. What do we know about group decision making? General aids towards improving group decision making.

UNIT V **Communication Skills: Public Speaking:** Importance of Public speaking for professionals. The art of Speaking - Forget the fear of presentation, Symptoms of stage fear, Main reason for speech failure, Stop failures by acquiring Information. Preparation & designing of speech, Skills to impress in public speaking & Conversation, Use of presentation aids & media.

Study & Examination: How to tackle examination, How to develop successful study skills.

Group discussions: Purpose of GD, What factors contribute to group worthiness, Roles to be played in GD.

Course Outcomes:

- The students will be able to develop inner and outer personality exposure;
- The students will be able to develop effective leadership qualities and interacting skills;
- The students will be able to develop positive attitude, motivating skills and develop winning philosophies;
- The students will be able to develop decision-making tools; and
- The students will be able to develop group presentation, public speaking and impressive conversation.

Text Books:

1. Basic Managerial Skills for all by E. H. McGrawth, prentice Hall India Pvt. Ltd., 2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:

1. How to Develop a Pleasing Personality by Atul John Rego, Better Yourself Books, Mumbai, 2000
2. How to Succeed by Brain Adams, Better Yourself Books, Mumbai, 1969
3. Personality: Classic Theories & Modern Research: Friedman ; Pearson Education, 2006
4. How to Win Friends and Influence People by Dale Carnigie, A. H. Wheeler 2006

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching and Examination

B.E. VI Semester Computer Science &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	Computer Sc. & Engg.	322651(22)	Computer Networks	4	1	-	80	20	20	120	5
2	Computer Sc. & Engg.	322652(22)	Compiler Design	3	1	-	80	20	20	120	4
3	Computer Sc. & Engg.	322653(22)	Enterprise Resource Planning	3	1	-	80	20	20	120	4
4	Computer Sc. & Engg.	322654(22)	Software Engineering & Project Management	3	1	-	80	20	20	120	4
5	Computer Sc. & Engg.	322655(22)	Computer Graphics	3	1	-	80	20	20	120	4
6	*Refer Table -1*		Professional Elective -I	3	1	-	80	20	20	120	4
7	Computer Sc. & Engg.	322661(22)	Computer Networks Lab	-	-	3	40	-	20	60	2
8	Computer Sc. & Engg.	322662(22)	Software Engineering & Project Management Lab – With Minor Project	-	-	3	40	-	20	60	2
9	Computer Sc. & Engg.	322663(22)	Computer Graphics Lab	-	-	3	40	-	20	60	2
10	Computer Sc. & Engg.	322664(22)	Advanced Java Programming Lab	-	-	3	40	-	20	60	2
11	Management	300665(76)	Managerial Skills	-	-	2	-	-	40	40	1
12	Computer Sc. & Engg.	----------	Library	-	-	1	-	-	-	-	-
TOTAL				19	6	15	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 mu have been completed in summer after IV semester. The second part to be completed during summer after VI semester after whi students have to submit a training report which will be evaluated by college teachers during B.E. VII semester.

Table 1: Professional Elective–I

S. No.	Board of Studies	Subject Code	Subject Name
1	Computer Science &Engg.	322671(22)	Digital Signal Processing
2	Computer Science & Engg.	322672(22)	Advanced Microprocessors & Micro Controllers
3	Information Technology	322673(33)	Multimedia & Virtual Reality
4	Computer Science & Engg.	322674(22)	Inter-Networking with TCP/IP
5	Computer Science & Engg.	322675(22)	Management Information Systems
6	Computer Science & Engg.	322676(22)	Advanced Operating System
7	Computer Science & Engg.	322677(22)	Advanced Data Base Systems.
8	Computer Science & Engg.	322678(22)	Object Oriented Modelling & Design

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.

1. 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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**VI**
Subject:	**Managerial Skills**	Code:	**300665 (76)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**40**

Minimum number of Class Tests to be conducted: **Two**

Objective:
The course is introduced to develop managerial skills tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Managerial skills are essential for overall professional development of an individual apart from gaining technical knowledge in the subject.

Course Objectives
Upon completion of this course, the student shall be able

- To define and explain the concept of managerial, written and oral communication skill;
- To understand the leadership skill;
- To develop self-appraisal and understand distinction between leader and manager;
- To develop positive attitude and thinking; and
- To understand managerial functions and develop creativity.

UNIT I **Managerial Communication Skills:** Importance of Business Writing: writing business letters, memorandum, minutes, and reports- informal and formal, legal aspects of business communication, oral communication- presentation, conversation skills, negotiations, and listening skills, how to structure speech and presentation, body language.

UNIT II **Managerial skills - Leadership**: Characteristics of leader, how to develop leadership; ethics and values of leadership, leaders who make difference, conduct of meetings, small group communications and Brain storming, Decision making, How to make right decision, Conflicts and cooperation, Dissatisfaction: Making them productive.

UNIT III **Proactive Manager:** How to become the real you: The journey of self-discovery, the path of self-discovery, Assertiveness: A skill to develop, Hero or developer, Difference between manager and leader, Managerial skill check list, team development, How to teach and train, time management, Stress management, Self-assessment.

UNIT IV **Attitudinal Change:** Concept of attitude through example, benefits of right attitude, how to develop habit of positive thinking, what is fear? How to win it? How to win over failure? How to overcome criticism? How to become real you? How to Motivate? How to build up self confidence?

UNIT V **Creativity**: Creativity as a managerial skill, Trying to get a grip on creativity. Overview of Management Concepts: Function of Management: Planning, organizing, staffing, controlling.

Course Outcome

- The students will be able to develop formal and informal, negotiation, written and oral communication skill;
- The students will be able to develop manage groups, resolve conflicts and leadership skill and decision making qualities;
- The students will be able to develop self-appraisal, teaching, training and managing stress and time;
- The students will be able develop positive thinking, motivating team members and winning race; and
- The students will be able to develop creativity and fundamental management functions.

Text Books:

1. Basic Managerial Skills for all by E.H. Mc Grawth, Prentice Hall India Pvt Ltd,2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:

1. How to develop a pleasing personality by Atul John Rego, Better yourself books, Mumbai,2006
2. The powerful Personality by Dr. Ujjawal Patni & Dr. Pratap Deshmukh, Fusion Books, 2006
3. How to Success by Brian Adams, Better Yourself books, Mumbai, 1969

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Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)
SCHEME OF TEACHING AND EXAMINATION
B.E. VI SEMESTER ELECTRICAL ENGINEERING

S. No.	Board of Studies	Subject Code	Subject	Periods per week			Scheme of Exam Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Electrical Engg.	324651(24)	Power System Analysis	3	1	-	80	20	20	120	4
2	Electrical Engg.	324652(24)	Electrical Machines -III	4	1	-	80	20	20	120	5
3	Electrical Engg.	324653(24)	Power Electronics	4	1	-	80	20	20	120	5
4	Electrical Engg.	324654(24)	Instrumentation Techniques	3	1	-	80	20	20	120	4
5	Electrical Engg.	324655(24)	Principles of Digital Signal Processing	3	1	-	80	20	20	120	4
6	*Refer Table -1*		Professional Elective- I	3	1	-	80	20	20	120	4
7	Electrical Engg.	324661(24)	Power System Analysis Lab	-	-	3	40	-	20	60	2
8	Electrical Engg.	324662(24)	Electrical Machines -III Lab	-	-	3	40	-	20	60	2
9	Electrical Engg.	324663(24)	Power Electronics Lab	-	-	3	40	-	20	60	2
10	Electrical Engg.	324664(24)	Instrumentation Techniques Lab	-	-	3	40	-	20	60	2
11	Management	300665(76)	Managerial Skills	-	-	2	-	-	40	40	1
12	Electrical Engg.	----------	Library/Industry Institute Interaction	-	-	1	-	-	-	-	-
Total				20	6	15	640	120	240	1000	35

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 p must have been completed in summer after IV semester. The second part to be completed during summer after VI semester at which students have to submit a training report which will be evaluated by college teachers during B.E. VII semester.

Table – I Professional Electives – I

S. No.	Board of Studies	Subject Code	Subject
1.	Electrical Engg.	324671(24)	Fibre Optics
2.	Electrical Engg.	324672(24)	Computer Aided Design of Electrical Machine
3.	Electrical Engg.	324673(24)	Process Control
4.	Electrical Engg.	324674(24)	Computer System Architecture
5.	Electrical Engg.	324675(24)	Power System Planning & Reliability
6.	Electrical Engg.	324676(24)	Cyber Security

Note (1) – 1/4th of the total strength of students subject to minimum of twenty students is required to offer 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.

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**VI**
Subject:	**Managerial Skills**	Code:	**300665 (76)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**40**

Minimum number of Class Tests to be conducted: **Two**

Objective:
The course is introduced to develop managerial skills tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Managerial skills are essential for overall professional development of an individual apart from gaining technical knowledge in the subject.

Course Objectives
Upon completion of this course, the student shall be able
- To define and explain the concept of managerial, written and oral communication skill;
- To understand the leadership skill;
- To develop self-appraisal and understand distinction between leader and manager;
- To develop positive attitude and thinking; and
- To understand managerial functions and develop creativity.

UNIT I **Managerial Communication Skills:** Importance of Business Writing: writing business letters, memorandum, minutes, and reports- informal and formal, legal aspects of business communication, oral communication- presentation, conversation skills, negotiations, and listening skills, how to structure speech and presentation, body language.

UNIT II **Managerial skills - Leadership**: Characteristics of leader, how to develop leadership; ethics and values of leadership, leaders who make difference, conduct of meetings, small group communications and Brain storming, Decision making, How to make right decision, Conflicts and cooperation, Dissatisfaction: Making them productive.

UNIT III **Proactive Manager:** How to become the real you: The journey of self-discovery, the path of self-discovery, Assertiveness: A skill to develop, Hero or developer, Difference between manager and leader, Managerial skill check list, team development, How to teach and train, time management, Stress management, Self-assessment.

UNIT IV **Attitudinal Change:** Concept of attitude through example, benefits of right attitude, how to develop habit of positive thinking, what is fear? How to win it? How to win over failure? How to overcome criticism? How to become real you? How to Motivate? How to build up self confidence?

UNIT V **Creativity**: Creativity as a managerial skill, Trying to get a grip on creativity. Overview of Management Concepts: Function of Management: Planning, organizing, staffing, controlling.

Course Outcome
- The students will be able to develop formal and informal, negotiation, written and oral communication skill;
- The students will be able to develop manage groups, resolve conflicts and leadership skill and decision making qualities;
- The students will be able to develop self-appraisal, teaching, training and managing stress and time;
- The students will be able to develop positive thinking, motivating team members and winning race; and
- The students will be able to develop creativity and fundamental management functions.

Text Books:
1. Basic Managerial Skills for all by E.H. Mc Grawth, Prentice Hall India Pvt Ltd,2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:
1. How to develop a pleasing personality by Atul John Rego, Better yourself books, Mumbai,2006
2. The powerful Personality by Dr. Ujjawal Patni & Dr. Pratap Deshmukh, Fusion Books, 2006
3. How to Success by Brian Adams, Better Yourself books, Mumbai, 1969

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Branch:	Electrical Engineering	Semester:	VI
Subject:	Cyber Security (Professional Elective – I)	Code:	324676(24)
Total Theory Periods:	40	Total Tutorial Periods:	12
No. of class Tests to be conducted:	2 (Minimum)	No. of assignments to be submitted:	2 (Minimum)
ESE Duration:	Three Hours	Maximum Marks in ESE: 80	Minimum Marks in ESE: 28

Course Objectives:

1. To explore basics idea about the networking and its applications.
2. To explore basics idea about the different types of security attacks and their vulnerabilities.
3. To develop an idea for secure data communication on networks.
4. To give an idea about security management, laws and standards.

Course Outcomes:

1. They will learn about concepts of networks and its basic components.
2. They will be in condition to identify different types of attacks and their vulnerability.
3. They will be able to explain different types of networks are in use and how to communicate securely using them.
4. They will learn about the security management and their applications.

UNIT I **Overview of Networking Concepts:** Basics of Communication Systems, Transmission Media, topology and Types of Networks, TCP/IP Protocol stacks, Wireless Networks, The Internet. **Information Security Concepts:** Information security overview: background and current scenario, Types of attacks, Goals for security, E-commerce security, Computer Forensics, Steganography.

UNIT II **Security Threats and Vulnerabilities:** Overview of Security threats, weak/ strong passwords and password cracking, Insecure network connections, Malicious code, Programming bugs, Cyber crime and cyber terrorism, Information warfare and surveillance. *Cryptography/Encryption*: Introduction to Cryptography/Encryption, Digital Signatures, Public Key infrastructure, Applications of Cryptography, tools and techniques of Cryptography.

UNIT III **Security Management Practices:** Overview of security management, Information classification process, Security policy, Risk management, Security procedures and guidelines, Business continuity and disaster recovery, Ethics and best practices. Security Laws and Standards: Security assurance, security laws, IPR, International standards, Security audit, SSE-CMM/COBIT etc.

UNIT IV **Information and Network Security: Access Control and Intrusion Detection:** Overview of identification and authorization, Overview of IDS, Intrusion, Detection Systems and Intrusion prevention systems. **Server Management and Firewalls:** User management, Overview of Firewalls, Types of firewalls, DMZ and firewall features.

UNIT V **System and application Security: Architectures and Models:** Designing secure operating systems, Controls to enforce security services, Information security models. **System Security:** Desktop security, email security:PGP and SMIME, Web security: Web authentication, SSL and SET, Database security. **OS Security:** OS security vulnerabilities, updates and patches, OS integrity checks, Antivirus software, Configuring the OS for security, OS Security Vulnerabilities, Updates and patches. Wireless Networks and Security: Components of wireless networks, Security issues in wireless.

Text Books:

1. Cyber Laws: Intellectual property and E commerce, Security-Kumar K, dominant publisher.
2. Information Security policy and implementation Issues NIIT, PHI.
3. TCP/IP Protocol Suite fourth Edition – Behrouz A. Forouzan.
4. Cryptography and Network Security Second Edition – William Stalling.

Reference Books:

1. Cyber CRIME notorious aspects of the humans and net criminals activity in Cyber world. Barna Y Dayal D P Dominant Publisher.
2. Spam Attack, Cyber Stalking and abuse, Dayal D P Dominant Publisher.
3. Information Security, NIIT: PHI.

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

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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 -1*		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. 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
2. 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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**VI**
Subject:	**Managerial Skills**	Code:	**300665 (76)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**40**

Minimum number of Class Tests to be conducted: **Two**

Objective:
The course is introduced to develop managerial skills tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Managerial skills are essential for overall professional development of an individual apart from gaining technical knowledge in the subject.

Course Objectives
Upon completion of this course, the student shall be able

- To define and explain the concept of managerial, written and oral communication skill;
- To understand the leadership skill;
- To develop self-appraisal and understand distinction between leader and manager;
- To develop positive attitude and thinking; and
- To understand managerial functions and develop creativity.

UNIT I **Managerial Communication Skills:** Importance of Business Writing: writing business letters, memorandum, minutes, and reports- informal and formal, legal aspects of business communication, oral communication- presentation, conversation skills, negotiations, and listening skills, how to structure speech and presentation, body language.

UNIT II **Managerial skills – Leadership**: Characteristics of leader, how to develop leadership; ethics and values of leadership, leaders who make difference, conduct of meetings, small group communications and Brain storming, Decision making, How to make right decision, Conflicts and cooperation, Dissatisfaction: Making them productive.

UNIT III **Proactive Manager:** How to become the real you: The journey of self-discovery, the path of self-discovery, Assertiveness: A skill to develop, Hero or developer, Difference between manager and leader, Managerial skill check list, team development, How to teach and train, time management, Stress management, Self-assessment.

UNIT IV **Attitudinal Change:** Concept of attitude through example, benefits of right attitude, how to develop habit of positive thinking, what is fear? How to win it? How to win over failure? How to overcome criticism? How to become real you? How to Motivate? How to build up self confidence?

UNIT V **Creativity**: Creativity as a managerial skill, Trying to get a grip on creativity. Overview of Management Concepts: Function of Management: Planning, organizing, staffing, controlling.

Course Outcome

- The students will be able to develop formal and informal, negotiation, written and oral communication skill;
- The students will be able to develop manage groups, resolve conflicts and leadership skill and decision making qualities;
- The students will be able to develop self-appraisal, teaching, training and managing stress and time;
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- The students will be able to develop creativity and fundamental management functions.

Text Books:

1. Basic Managerial Skills for all by E.H. Mc Grawth, Prentice Hall India Pvt Ltd,2006
2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:

1. How to develop a pleasing personality by Atul John Rego, Better yourself books, Mumbai,2006
2. The powerful Personality by Dr. Ujjawal Patni & Dr. Pratap Deshmukh, Fusion Books, 2006
3. How to Success by Brian Adams, Better Yourself books, Mumbai, 1969

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING AND EXAMINATION

B.E. VI SEMESTER MECHANICAL ENGINEERING

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	337651 (37)	Machine Design – II	4	1	-	80	20	20	120	5
2.	Mech. Engg	337652 (37)	Energy Systems	4	1	-	80	20	20	120	5
3.	Mech. Engg	337653 (37)	Internal Combustion Engines	4	1	-	80	20	20	120	5
4.	Mech. Engg	337654 (37)	Heat & Mass Transfer	4	1	-	80	20	20	120	5
5.	Mech. Engg	337655 (37)	Production Management	3	1	-	80	20	20	120	4
6.	*Refer Table I*		Professional Elective-I	4	1	-	80	20	20	120	5
7.	Mech. Engg	337661 (37)	Machine Design-II Lab	-	-	2	40	-	20	60	1
8.	Mech. Engg	337662 (37)	Internal Combustion Engines Lab	-	-	2	40	-	20	60	1
9.	Mech. Engg	337663 (37)	Production Management Lab	-	-	2	40	-	20	60	1
10.	Mech. Engg	337664 (37)	HMT Lab	-	-	2	40	-	20	60	1
11.	Management	300665 (76)	Managerial Skills	-	-	2	-	-	40	40	1
12.	Mech. Engg	----------	Library	-	-	1	-	-	-	-	-
Total				**23**	**6**	**11**	**640**	**120**	**240**	**1000**	**34**

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

S. No.	Board of Study	Subject Code	Subject
1	Mechanical Engineering	337671 (37)	Industrial Hydraulics
2	Mechanical Engineering	337672 (37)	Control Engineering
3	Mechanical Engineering	337673 (37)	Engineering Economics
4	Mechanical Engineering	337674 (37)	Composite Materials
5	Mechanical Engineering	337675 (37)	Power Plant Engineering
6	Mechanical Engineering	337676 (37)	Maintenance and Reliability
7	Mechanical Engineering	337677 (37)	Computer Graphics

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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Engineering**		
Branch:	**Common to All Branches**	Semester:	**VI**
Subject:	**Managerial Skills**	Code:	**300665 (76)**
No. of Lectures:	**2/Week**	Tutorial Period:	**NIL**
Total Marks in ESE:	**NIL**	Marks in TA:	**40**

Minimum number of Class Tests to be conducted: **Two**

Objective:
The course is introduced to develop managerial skills tremendously and enrich the abilities to enable one to meet the challenges associated with different job levels. Managerial skills are essential for overall professional development of an individual apart from gaining technical knowledge in the subject.

Course Objectives
Upon completion of this course, the student shall be able
- To define and explain the concept of managerial, written and oral communication skill;
- To understand the leadership skill;
- To develop self-appraisal and understand distinction between leader and manager;
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- To understand managerial functions and develop creativity.

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UNIT II **Managerial skills - Leadership**: Characteristics of leader, how to develop leadership; ethics and values of leadership, leaders who make difference, conduct of meetings, small group communications and Brain storming, Decision making, How to make right decision, Conflicts and cooperation, Dissatisfaction: Making them productive.

UNIT III **Proactive Manager:** How to become the real you: The journey of self-discovery, the path of self-discovery, Assertiveness: A skill to develop, Hero or developer, Difference between manager and leader, Managerial skill check list, team development, How to teach and train, time management, Stress management, Self-assessment.

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UNIT V **Creativity**: Creativity as a managerial skill, Trying to get a grip on creativity. Overview of Management Concepts: Function of Management: Planning, organizing, staffing, controlling.

Course Outcome
- The students will be able to develop formal and informal, negotiation, written and oral communication skill;
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2. Basic Employability Skills by P. B. Deshmukh, BSP Books Pvt. Ltd., Hyderabad, 2014

Reference Books:
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2. The powerful Personality by Dr. Ujjaval Patni & Dr. Pratap Deshmukh, Fusion Books, 2006

How to Success by Brian Adams, Better Yourself books, Mumbai, 1969

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

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Chhattisgarh Swami Vivekanand Technical University,Bhilai

Scheme of teaching and examination

B.E. VII Semester Computer Science & Engineering

S.No	Board of Study	Subject Code	Subject Name	Periods per week			Scheme of Exam Theory/Practical			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Information Technology	322731(33)	Mobile Computing & Application	3	1		80	20	20	120	4
2	Comp. Science & Engg.	322732(22)	Parallel Processor and Computing	3	1		80	20	20	120	4
3	Comp. Science & Engg.	322733(22)	Network Programming	3	1		80	20	20	120	4
4	Comp. Science & Engg.	322734(22)	Cryptography & Network Security	3	1		80	20	20	120	4
5	Refer Table-2		Professional Elective-2	4			80	20	20	120	4
6	Comp. Science & Engg.	322761(22)	Soft Computing Lab (Matlab/Sci lab)			4	40		20	60	2
7	Comp. Science & Engg.	322762(22)	Network Programming Lab			4	40		20	60	2
8	Information Technology	322763(33)	Android Lab			4	40		20	60	2
9	Comp. Science & Engg.	322764(22)	Minor Project			5	100		40	140	3
10	Management	322765(76)	Innovative & Entrepreneurial Skills			2			40	40	1
11	Comp. Science & Engg.	322766(22)	** Practical Training ** Evaluation / Library			1			40	40	1
			TOTAL	16	4	20	620	100	280	1000	31

L:Lecture T:Tutorial P:Practical ESE: End Semester Examination CT: Class Test

TA: Teacher's Assessment

Note 1: Duration of All theory papers will be of Three Hours

Note 2: ** To be completed after VI semester and before the commencement of VII Semester

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

SCHEME OF TEACHING AND EXAMINATION

B.E. VII SEMESTER ELECTRICAL ENGINEERING

o.	Board of Studies	Subject Code	Subject	Periods per week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Electrical Engg.	324731(24)	Switchgear & Protection	4	1	-	80	20	20	120	5
2	Electrical Engg.	324732(24)	Modern Control System	4	1	-	80	20	20	120	5
3	Electrical Engg.	324733(24)	Electrical Drives	4	1	-	80	20	20	120	5
4	Electrical Engg.	324734(24)	Energy Auditing and Management	4	1	-	80	20	20	120	5
5	Refer Table -2		Professional Elective-II	4	1		80	20	20	120	5
6	Electrical Engg.	324761(24)	Switchgear & Protection Lab	-	-	3	40	-	20	60	2
7	Electrical Engg.	324762(24)	Electrical Drives Lab	-		3	40	-	20	60	2
8	Electrical Engg.	324763(24)	Programming and Simulation in MATLAB	-	-	3	40	-	20	60	2
9	Electrical Engg.	324764(24)	Project Phase-I	-	-	4	100	-	40	140	2
10	Management	324765(76)	Innovative & Entrepreneurial Skills	-	-	1	-	-	40	40	1
11	Electrical Engg.	324766(24)	**Practical Training Evaluation	-	-	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.

Table -2 Professional Electives-II

S.No	Board of Studies	Subject Code	Subject
1	Electrical Engg.	324741(24)	Power Apparatus System
2	Electrical Engg.	324742(24)	Systems Software
3	Electrical Engg.	324743(24)	Modeling & Simulation
4	Electrical Engg.	324744(24)	Advanced Microprocessor
5	Electrical Engg.	324745(24)	Embedded system software in C
6	Electrical Engg.	324746(24)	Microcontroller & embedded Systems
7	Electrical Engg.	324747(24)	Digital Image Processing

Note (1) One fourth 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.

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ChhattisgarhSwamiVivekanandTechnicalUniversity,Bhilai

SchemeofTeachingandExamination

B.E.VIISemesterElectronics&TelecommunicationEngineering

Sl. No.	Boardof Study	CodeNo.	Subjects	PeriodPer Week			SchemeofExam			Total Marks	Credit L+(T+P)
							Theory/Practical				
				L	T	P	ESE	CT	TA		
1	Electronics&Telecom.	328731(28)	MicrowaveCommunicationand Engineering	4	1	-	80	20	20	120	5
2	Electronics&Telecom.	328732(28)	ComputerNetworks	3	1	-	80	20	20	120	4
3	Electronics&Telecom.	328733(28)	WirelessCommunications	3	1	-	80	20	20	120	4
4	Electronics&Telecom.	328734(28)	ManagementConcepts& Techniques	3	1	-	80	20	20	120	4
5	ReferTable-2		ProfessionalElective-II	3	1	-	80	20	20	120	4
6	Electronics&Telecom.	328761(28)	MicrowaveCommunicationand EngineeringLab	-	-	4	40	-	20	60	2
7	Electronics&Telecom.	328762(28)	ComputerNetworksLab	-	-	4	40	-	20	60	2
8	Electronics&Telecom.	328763(28)	AdvanceCommunicationLab	-	-	4	40	-	20	60	2
9	Electronics&Telecom.	328764(28)	MinorProject	-	-	4	100	-	40	140	2
10	Management	328765(28)	Innovative&Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Electronics&Telecom.	328766(28)	**PracticalTrainingEvaluation andLibrary	-	-	1	-	-	40	40	1
TOTAL				16	5	19	620	100	280	1000	31

L-Lecture,T-Tutorial,P-Practical,ESE-EndSemesterExamination,CT-ClassTest,TA-Teacher's Assessment

**To becompletedafterVIISemesterandbeforethecommencementofVIISemester*

Table-2

ProfessionalElective-II

Sl.No.	BoardofStudy	Code	Subject
1	Electronics& Telecom.	328740(28)	DigitalCircuitDesignwithVerilogHDL
2	Electronics& Telecom.	328742(28)	SystemDesignwithARM
3	Electronics& Telecom.	328743(28)	Robotics&Controls
4	Electronics& Telecom.	328744(28)	RadarandNavigationalAids
5	Electrical and Electronics	325745(25)	IndustrialAutomation
6	Electronics& Telecom.	328746(28)	NeuralNetwork&FuzzyLogic
7	Electronics& Telecom.	328747(28)	RFCommunicationDesign
8	Electronics& Telecom.	328748(28)	VLSISystemDesign
9	Electronics& Telecom.	328749(28)	DigitalImageProcessing

Note (1)- 1/4thoftotal strength ofstudents subjectto minimum oftwentystudents isrequired tooffer aneelective in thecollegea particular academicsession.

Note(2)- Choice ofelective course once madefor anexamination cannotbechangedin future examinations.

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

SCHEME OF TEACHING & EXAMINATION

B.E. VII SEMESTER MECHANICAL ENGINEERING

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	337732(37)	Refrigeration & Air-conditioning	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	337734(37)	Machine Tool Technology	4	1	-	80	20	20	120	5
5	Refer Table - II		Professional Elective-II	4	1	-	80	20	20	120	5
6	Mech. Engg	337761(37)	Automobile Engineering Lab	-	-	3	40	-	20	60	2
7	Mech. Engg	337762(37)	Refrigeration & Air-conditioning Lab	-	-	3	40	-	20	60	2
8	Mech. Engg	337763(37)	Computer Aided Design and Manufacturing Lab	-	-	3	40	-	20	60	2
9	Mech. Engg	337764(37)	Minor Project	-	-	3	100	-	40	140	2
10	Management	337765(76)	Innovative & Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Mech. Engg	337766(37)	** Practical Training Evolution/ Library	-	-	1	-	-	40	40	1
			Total	19	5	15	620	100	280	1000	34

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

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

Table – II

Professional Elective - II

S.No.	Branch	Subject Code	Subject
1	Mechanical	337741(37)	Quality Control & Total Quality Management
2	Mechanical	337742(37)	Energy Management & Audit
3	Mechanical	337743(37)	Applied Elasticity & Plasticity
4	Mechanical	337744(37)	Product Design & Development
5	Mechanical	337745(37)	Numerical Control of Machines Tools
6	Mechanical	337746(37)	Thermal System Design
7	Mechanical	337747(37)	Cyber Security/Information Security

Note: (1) 1/4th 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.

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

Name of program: **Bachelor of Engineering**
Branch: **Common to All Branches** Semester: **VII**
Subject: **Innovative and Entrepreneurial skills** Code: **337765(76)**
Total Lab Periods: **24** Batch Size: **30**
Maximum Marks: **40** Minimum Marks: **24**

Unit I
Innovation
Innovation- an abstract concept; creativity, innovation and imagination; types of innovation - classified according to products, processes or business organizations.

Unit II
Entrepreneurship
Who is an entrepreneur? Entrepreneurship- A state of Mind, Emergence of entrepreneur; Role of Entrepreneur; A Doer not a Dreamer- Characteristics of an entrepreneur; Factors affecting entrepreneurial growth – Social, cultural, personality factors, psychological and Social Factors. Impact of entrepreneurship for sustainable development.

Unit III
Difference between entrepreneur and entrepreneurship
Difference between entrepreneur and entrepreneur, Common Entrepreneurial competencies/Traits; Entrepreneurship stimulants, Obstacles inhibiting entrepreneurship; Types of entrepreneurs, Functions of an entrepreneur.

Unit IV
Identification of Business Opportunities
Introduction, Sources of Business of Product Ideas, Steps in Identification of Business opportunity and its SWOT Analysis.

UNIT-V
Techno-Economic Feasibility of the project
Introduction, Techno- Economic feasibility of the Project, Feasibility Report, Considerations while preparing a Feasibility Report, Proforma of Feasibility Report, Role of Institutions and entrepreneurship.

Text and Reference Books:
1. Competing through Innovation-Bellon & Whittington - Prentice Hall of India
2. A Guide to Entrepreneurship – David Oates- JAICO Publishing House.
3. Entrepreneurship- Robert D Hisrich, Peters, Shepherd- TMH
4. Entrepreneurship in Action- Coulter - Prentice Hall of India
5. Entrepreneurship Management and Development – Ajith Kumar - HPH
6. Fundamentals of entrepreneurship- Mohanty - PHI
7. Patterns of Entrepreneurship- Jack M Kaplan – Wiley
8. Innovation and Entrepreneurship Practice And Principles- Drucker, Petere- East West Press

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Open Elective-IV
(Common to all branches)

Elective -IV			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300851(76)	Enterprise Resource Planning
2	Information Technology	300852(33)	E-Commerce & strategic IT
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(36)	Intellectual Property Rights
14	Mech. 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 and Management
20	Mechanical	300811(37)	Managing Innovation and Enterprenurship
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

Note (1) – $1/4^{th}$ 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

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Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai (CG)

SCHEME OF TEACHING AND EXAMINATION

Courses of Study and Scheme of Examination of P1 Group
B Tech (First Semester - Common to all Branches of Engineering) 2019-20

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Basic Sciences	Physics-I	A000111(015)	3	1	-	100	20	30	150	4
2.	Basic Sciences	Mathematics-I*	A000112(014)	3	1	-	100	20	30	150	4
3.	Electrical Engineering	Basic Electrical and Electronics Engg.	A000113(024)	2	1	-	100	20	30	150	3
4.	Mechanical Engineering	Engineering Graphics and Design	A000114(037)	1	0	-	100	20	30	150	1
5.	Computer Science	Fundamentals of Computer	A000115(022)	2	0	-	100	20	30	150	2
6.	Basic Sciences	Physics (Lab)	A000121(015)	-	-	2	40	-	20	60	1
7.	Electrical Engineering	Basic Electrical and Electronics Engg. (Lab)	A000122(024)	-	-	2	40	-	20	60	1
8.	Computer Science	Fundamentals of Computer (Lab)	A000123(022)	-	-	2	40	-	20	60	1
9.	Mechanical Engineering	Engineering Graphics and Design (Lab)	A000124(037)	-	-	4	40	-	20	60	2
10.	Humanities	Value Education	A000105(046)	-	-	-	-	-	10	10	-
			Total Marks	11	3	10	660	100	240	1000	19

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

Note :

(a) The teaching in the 1st and 2nd Semester will be divided in two groups consisting of various branches as shown below :

P1-GROUP : Electronics & Telecommunication, Mechanical, Civil, Mining, Applied Electronics & Instrumentation, Metallurgy, Mechatronics, Automobile, Production Engineering, Fashion and Apparel Engineering

Q1-GROUP : Computer Science, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics, Plastic Engineering, Agriculture Engineering, Biotechnology

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

(c) Value Education will be conducted by the relevant discipline/humanities as decided by the Principal.

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

SCHEME OF TEACHING AND EXAMINATION

B.Tech (Third Semester – Computer Science Engineering)

S.No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Basic Science	Mathematics - III	B000311(014)	3	1	-	100	20	30	150	4
2.	Computer Science & Engg.	Data structure & Algorithms	B022312(022)	3	1	-	100	20	30	150	4
3.	Computer Science & Engg.	Principles of Programming Languages	B022313(022)	2	1	-	100	20	30	150	3
4.	Computer Science &Engg.	Digital Electronics& Logic Design	B022314(022)	2	1	-	100	20	30	150	3
5.	Computer Science &Engg.	Operating Systems	B022315(022)	2	1	-	100	20	30	150	3
6.	Computer Science &Engg.	Data structure & Algorithms Laboratory	B022321(022)		-	2	40	-	20	60	1
7.	Computer Science & Engg.	Digital Electronics& Logic Design Laboratory	B022322(022)		-	2	40	-	20	60	1
8.	Computer Science & Engg.	Operating Systems Laboratory (UNIX)	B022323(022)		-	2	40	-	20	60	1
9.	Computer Science & Engg.	Software Laboratory (Sci Lab/MATLAB)	B022324(022)		-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
			Total Marks	12	5	10	660	100	240	1000	21

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

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

Program/ Semester: B.Tech (III)	Branch: Computer Science & Engineering
Subject: SoftSkills & Personality Development	Course Code: B000306(046)
Total Marks (Internal Assessment): 10	L: 0 T: 0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): NA

UNIT-1 Communication Skills-Basics: Understanding the communicative environment, Listening: What to listen for and why, When to speak and how, Starting and sustaining a conversation, Presentation and Interaction, Common errors during communication, Humour in Communication.

UNIT-2 Interpersonal communication: Building Relationships, Understanding Group Dynamics- I, Emotional and Social Skills, Groups, Conflicts and their Resolution, Social Network, Media and Extending Our Identities

UNIT- 3 Vocational skills: Managing time: Planning and Goalsetting, managing stress: Types of Stress; Making best out of Stress, Resilience, Work-life balance, Applying soft-skills to workplace

UNIT-4 Mindsets and Handling People: Definitions and types of Mindset, Learning Mindset, Developing Growth Mindset, Types of People, How to say NO

UNIT-5 Inner Development: Motivating oneself, Persuasion, Survival Strategies, Negotiation, Leadership and motivating others, controlling anger, Gaining Power from Positive Thinking.

Text Books:

1. Petes S. J.,Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
2. Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.
3. Dorch, Patricia. What AreSoft Skills? New York: Execu Dress Publisher, 2013.

Reference Books:

- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
- Canfield, Jack.TheSuccess Principles (TM) — 10th Anniversary Edition: How to get from Where You Are to Where You want to Be. New York Times. 2009.
- Peale Norman Vincent. The Power of Positive Thinking: 10 Traits for Maximum Result. Paperback Publication. 2011.
- Klaus, Peggy, Jane Rohman & Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.

Course Outcomes [After undergoing the course, students will be able to]

1. Learn to listenactively to analyse audience and tailor the deliveryaccordingly.
2. Increase their awareness of communication behaviour by using propriety profiling tool.
3. Master three "As" of stressful situation: Avoid, Alter, Accept to cope with stressors and create a plan to reduce or eliminate them.
4. Develop growth mindset and able to handle difficult person and situations successfully.
5. Develop technique of turning negativity into positivity and generate self-motivation skills.

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

SCHEME OF TEACHING AND EXAMINATION

B.Tech (Third Semester – Electrical Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Basic Science	Mathematics - III	B000311(014)	3	1	-	100	20	30	150	4
2.	Electrical Engg.	Electrical Circuit Analysis	B024312(024)	3	1	-	100	20	30	150	4
3.	Electrical Engg.	Electrical Machines – I	B024313(024)	3	1	-	100	20	30	150	4
4.	Electrical Engg.	Digital Electronics	B024314(024)	2	1	-	100	20	30	150	3
5.	Electrical Engg.	Numerical Methods	B024315(024)	2	-	-	100	20	30	150	2
6.	Electrical Engg.	Electrical Machines Laboratory - I	B024321(024)	-	-	2	40	-	20	60	1
7.	Electrical Engg.	Electrical Circuit Analysis Laboratory	B024322(024)	-	-	2	40	-	20	60	1
8.	Electrical Engg.	Digital Electronics Laboratory	B024323(024)	-	-	2	40	-	20	60	1
9.	Electrical Engg.	Software Laboratory (Applications of Numerical Methods in Open Source)	B024324(024)	-	-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
			Total Marks	13	4	10	660	100	240	1000	21

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

SCHEME OF TEACHING AND EXAMINATION

B.Tech (Third Semester – Mechanical Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Basic Science	Mathematics - III	B000311(014)	3	1	-	100	20	30	150	4
2.	Mech. Engg.	Mechanical Measurement and Metrology	B037312(037)	2	1	-	100	20	30	150	3
3.	Mech. Engg.	Engineering Mechanics	B037313(037)	2	1	-	100	20	30	150	3
4.	Mech. Engg.	Engineering Thermodynamics	B037314(037)	2	1	-	100	20	30	150	3
5.	Mech. Engg.	Material Science	B037315(037)	2	1	-	100	20	30	150	3
6.	Mech. Engg.	Computer Aided Machine Drawing Lab	B037321(037)	-	-	4	40	-	20	60	2
7.	Mech. Engg.	Mechanical Measurement and Metrology Lab	B037322(037)	-	-	2	40	-	20	60	1
8.	Mech. Engg.	Engineering Thermodynamics Lab	B037323(037)	-	-	2	40	-	20	60	1
9.	Mech. Engg.	Software Lab	B037324(037)	-	-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
			Total Marks	11	5	10	660	100	240	1000	21

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

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Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai (CG)

SCHEME OF TEACHING AND EXAMINATION

Courses of Study and Scheme of Examination of
B. Tech. (Computer Science Engineering) – 4th Semester

Sl No	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Basic Science	Discrete Mathematics	B022411(014)	3	1	-	100	20	30	150	4
2.	Computer Science & Engg.	Computer System Architecture	B022412(022)	2	1	-	100	20	30	150	3
3.	Computer Science & Engg.	Database Management Systems	B022413(022)	3	1	-	100	20	30	150	4
4.	Computer Science & Engg.	Object Oriented Programming (with Java)	B022414(022)	2	1	-	100	20	30	150	3
5.	Computer Science & Engg.	Design & Analysis of Algorithms	B022415(022)	2	1	-	100	20	30	150	3
6.	Computer Science & Engg.	Computer Organization & Architecture Laboratory	B022421(022)	-	-	2	40	-	20	60	1
7.	Computer Science & Engg.	Object Oriented Programming Laboratory (Java)	B022422(022)	-	-	2	40	-	20	60	1
8.	Computer Science & Engg.	Database Management Systems Laboratory	B022423(022)	-	-	2	40	-	20	60	1
9.	Computer Science & Engg.	Virtual Laboratory	B022424(022)	-	-	2	40	-	20	60	1
10.	Humanities & Social Sciences	Environmental Sciences (Constitution of India)	B000406(046)	-	-	2	-	-	10	10	-
			Total	12	5	10	660	100	240	1000	21
Internship-I to be completed after fourth semester exam and its evaluation to be done in fifth semester											

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

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

Program / Semester: **B.Tech (IV)**	Branch: **Computer Science &Engineering**
Subject: **Constitution of India**	Course Code: B000406(046)
Total Marks (Internal Assessment): 10	L: 0 T: 0 P: 2 Credits: 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

Unit 1: The Constituent Assembly & The Constitution Of India: Historical Context of Constituent Assembly, Compositions & Functions, Critical Evaluation, Features of Indian Constitution, Preamble to the Constitution of India, Introduction to Fundamental Rights, Right to Equality, Right to Freedom, Constitutional Position of Some Democratic Rights, Right Against Exploitation, Right to Freedom of Religion, Right To Constitutional Remedies, Directive Principles

Unit 2: Organs Of The Government: The President of India, Powers and Functions of President, Emergency Powers and the Position of the President, Union Council of Ministers, Prime Minister, The Rajya Sabha, The Lok Sabha& Lok Sabha Speaker, Relation between Lok Sabha & Rajya Sabha

Unit 3: Indian Judiciary: The Structure and Organization of the Judiciary & the High Court, The Supreme Court, Role of The Supreme Court, Judicial Activism in India, Basic Structure Doctrine & PIL

Unit 4: Federalism & Decentralization: Legislative Procedures of the Parliament, Parliamentary Committees, Centre-State Legislative Relations, Centre-State Administrative Relations, Centre-State Financial Relations, The 5th & 6th Schedules

Unit 5: Indian Municipality and Gram Panchayats: Municipality-1 (History of Indian Municipality), Municipality-2 (Organization & Functions), Panchayat---1 (Idea of Panchayat), Organization and Powers of Panchayats in India

Text Books:

1. Durga Das Basu --- Introduction to the Constitution of India, 23rd Edition (Gurgaon; LexisNexis, 2018).
2. J.C.Johari -- The Constitution of India: A Politico-Legal Study (Greater Noida: Sterling Publishers Pvt. Ltd. 2013).
3. Himangshu Roy and M.P.Singh – Indian Political System, 4th Edition (Bengalaru; Pearson Education, 2018)
4. Vidya Bhushan &VishnooBhagwan--- Indian Administration (S. Chand, 2011)

Reference Books:

1. S.R.Maheswari --- Indian Administration (Orient Blackswan, 2001)
2. Dr. A.Avasthi& A.P. Avasthi --- Indian Administration (L.N. Agarwal Educational Publishing, 2017).
3. B. L. Fadia --- Indian Government and Politics (Sahitya a. Bhawan, 13th Revised Edition, 2017).
4. P.M.Bakshi – The Constitution of India (Prayagraj, UP; a. Universal Law Publishing, January, 2018)

Course Outcomes [The students should be able to]:

1. The citizens of India learn to abide by the laws of Indian Parliament and the judiciary.
2. Indians become aware of their fundamental rights and duties from the Constitution of India.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai (C.G.)
SCHEME OF TEACHING AND EXAMINATION

B Tech (ELECTRICAL ENGINEERING) IV Semester

SL No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credits
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Electrical	Electromagnetic Fields	B024411(024)	3	1	-	100	20	30	150	4
2.	Electrical	Power Systems – I (Apparatus and Modeling)	B024412(024)	3	1	-	100	20	30	150	4
3.	Electrical	Electrical Machines – II	B024413(024)	3	0	-	100	20	30	150	3
4.	Electrical	Signals and Systems	B024414(024)	2	1	-	100	20	30	150	3
5.	Electrical	Analog Electronics	B024415(024)	2	1	-	100	20	30	150	3
6.	Electrical	Electrical Machines Laboratory II	B024421(024)	-	-	2	40	-	20	60	1
7.	Electrical	Power Systems Laboratory I	B024422(024)	-	-	2	40	-	20	60	1
8.	Electrical	Analog Electronics Laboratory	B024423(024)	-	-	2	40	-	20	60	1
9.	Electrical	Virtual Lab	B025424(024)	-	-	2	40	-	20	60	1
10.	Non-Credit	Indian Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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.

Note:

1. Duration of End Semester Exam of all theory papers will be of Three Hours.
2. Industrial Training of eight weeks is mandatory for B.Tech.. 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.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program: **Bachelor of Technology**

Branch: **Common to All Branches** Semester: **IV**

Subject: **Indian Culture and Constitution of India** Code: B000406(046)

Total Theory Periods: **2/Week** Total Tutorial Periods: **NIL**

Assignments: **Two (Minimum)** Total Marks in ESE: **NIL** Marks in TA: **10**

Objective: The Constitution is the supreme law and it helps to maintain **integrity** in the society and to promote unity among the citizens to build a great nation. The main objective of the Indian Constitution is to promote harmony throughout the nation.

Course Objectives

Upon completion of this course, the student shall be able

- To understand Meaning and concepts of Traditional and Modern of Culture
- To understand Sources of the Study of Indian Culture
- To Enable the student to understand the history and importance of constitution
- To understand philosophy of fundamental rights and duties
- To understand the powers and functions of executive, legislature and judiciary
- To understand the powers and functions of state government
- To understand the recent trends in Indian constitutional and election commission of India.

To understand the central and state relation, financial and administrative.

UNIT-I

Meaning and concepts of Culture: Traditional and Modern concepts of Culture-Notions of Culture in textual tradition, anthropological, archaeological and sociological understanding of the term culture. Elements of Culture, concept of Indianness and value system. Relation between culture and civilization. Historiography and approaches to the study of Indian Culture– Stereotypes, Objectivity and Bias, Imperialist, Nationalist, Marxist and Subaltern. Heritage of India and world's debt to Indian Culture.

UNIT–II

Sources of the Study of Indian Culture: Archaeological: cultural remains, Monuments, Numismatics, Epigraphy; Literary sources and Oral traditions; Foreign Accounts; Archival sources.

UNIT–III

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History of Indian Constitution Constitutional History, Preamble salient features, citizenship, Method of Amendment and Recent Amendments. **Rights and Duties** Fundamental Rights and Directive Principles of State Policy. Fundamental Duties. Difference between Fundamental Rights and Directive Principles of State Policy

Union Government a) President-powers and functions. Vice president powers and functions, Prime Minister and council of ministers powers and functions. b) Parliament- Loksabha, Rajyasabha- composition powers and functions. c) Judiciary (Supreme Court) composition powers and functions Judicial Activism

UNIT–IV

State Government a) Governor: powers and functions b) Chief minister: powers and functions c) State Legislative Assembly and Legislative Council- composition powers and functions. d) High Court : composition powers and functions

UNIT–V

Recent Trends in Indian Constitutional a) Basic structure of Indian Constitution. b) Electoral Reforms c) Panchayati Raj system in India.

Books of Reference

1. Dr. P. K. Agrawal Indian Culture, Art and Heritage,
2. P. Raghunadha Rao Indian Heritage and Culture
3. M.V.Pylee, An Introduction to the Constitution of India,NewDelhi,Vikas,2005.
4. Subhash C.Kashyap, Our Constitution: An Introduction to India's Constitution and constitutional Law, New Delhi, National Book Trust, 2000.
5. Durga Das Basu, Introduction to the Constitution of India ,NewDelhi,Prentice Hall of India,2001.
6. D.C.Gupta, Indian Government and Politics,VIII Edition,New Delhi, Vikas, 1994.
7. V.D.Mahajan, Constitutional Development and National Movement inIndia, New Delhi, S. Chand and Co., latest edition.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching and Examination

B.E. IV Semester Electronics & Telecommunication Engineering

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory / Lab				
				L	T	P	ESE	CT	TA		
1.	Electronics & Telecom.	Analog Communication	B028411(028)	3	1	-	100	20	30	150	4
2.	Electronics & Telecom.	Analog Circuits	B028412(028)	3	1	-	100	20	30	150	4
3.	Electronics & Telecom.	Electromagnetic Field Theory	B028413(028)	2	1	-	100	20	30	150	3
4.	Electronics & Telecom.	Signals & Systems	B028414(028)	2	1	-	100	20	30	150	3
5.	Electronics & Telecom.	Probability Theory and Stochastic Processes	B028415(028)	2	1	-	100	20	30	150	3
6.	Electronics & Telecom.	Analog Communication Lab	B028421(028)	-	-	2	40	-	20	60	1
7.	Electronics & Telecom.	Analog circuits Lab	B028422(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Programming using Python lab	B028423(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	Virtual Lab	B028424(028)	-	-	2	40	-	20	60	1
10.	MC Non-credit	Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	
Total Marks				13	4	10	660	100	240	1000	21

Note:

1. **Duration of End Semester Exam of all theory papers will be of Three Hours.**
2. **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 semester after which students have to submit a training report which will be evaluated by the college teachers during B.E. V semester.**

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program: **Bachelor of Technology**

Branch: **Common to All Branches** Semester: **IV**

Subject: **Indian Culture and Constitution of India** Code: B000406(046)

Total Theory Periods: **2/Week** Total Tutorial Periods: **NIL**

Assignments: **Two (Minimum)** Total Marks in ESE: **NIL** Marks in TA: **10**

Objective: The Constitution is the supreme law and it helps to maintain **integrity** in the society and to promote unity among the citizens to build a great nation. The main objective of the Indian Constitution is to promote harmony throughout the nation.

Course Objectives

Upon completion of this course, the student shall be able

- To understand Meaning and concepts of Traditional and Modern of Culture
- To understand Sources of the Study of Indian Culture
- To Enable the student to understand the history and importance of constitution
- To understand philosophy of fundamental rights and duties
- To understand the powers and functions of executive, legislature and judiciary
- To understand the powers and functions of state government
- To understand the recent trends in Indian constitutional and election commission of India.

To understand the central and state relation, financial and administrative.

UNIT-I

Meaning and concepts of Culture: Traditional and Modern concepts of Culture-Notions of Culture in textual tradition, anthropological, archaeological and sociological understanding of the term culture. Elements of Culture, concept of Indianness and value system. Relation between culture and civilization. Historiography and approaches to the study of Indian Culture– Stereotypes, Objectivity and Bias, Imperialist, Nationalist, Marxist and Subaltern. Heritage of India and world's debt to Indian Culture.

UNIT–II

Sources of the Study of Indian Culture: Archaeological: cultural remains, Monuments, Numismatics, Epigraphy; Literary sources and Oral traditions; Foreign Accounts; Archival sources.

UNIT–III

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Union Government a) President-powers and functions. Vice president powers and functions, Prime Minister and council of ministers powers and functions. b) Parliament- Loksabha, Rajyasabha- composition powers and functions. c) Judiciary (Supreme Court) composition powers and functions Judicial Activism

UNIT–IV

State Government a) Governor: powers and functions b) Chief minister: powers and functions c) State Legislative Assembly and Legislative Council- composition powers and functions. d) High Court : composition powers and functions

UNIT–V

Recent Trends in Indian Constitutional a) Basic structure of Indian Constitution. b) Electoral Reforms c) Panchayati Raj system in India.

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4. Subhash C.Kashyap, Our Constitution: An Introduction to India's Constitution and constitutional Law, New Delhi, National Book Trust, 2000.
5. Durga Das Basu, Introduction to the Constitution of India ,New Delhi,Prentice Hall of India,2001.
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7. V.D.Mahajan, Constitutional Development and National Movement in India, New Delhi, S. Chand and Co., latest edition.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching and Examination

B.Tech. (Mechanical Engineering) IV Semester

S. No.	Board of Study	Courses (Subject)	CourseCode	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1	Mech. Engg.	Applied Thermodynamics	B037411(037)	2	1	-	100	20	30	150	3
2	Mech. Engg.	Fluid Mechanics	B037412(037)	3	1	-	100	20	30	150	4
3	Mech. Engg.	Strength of Materials	B037413(037)	2	1	-	100	20	30	150	3
4	Mech. Engg.	Manufacturing Process	B037414(037)	2	1	-	100	20	30	150	3
5	Mech. Engg.	Kinematic of Machine	B037415(037)	3	1	-	100	20	30	150	4
6	Mech. Engg.	Fluid Mechanics Lab	B037421(037)	-	-	2	40	-	20	60	1
7	Mech. Engg.	Material Testing Lab	B037422(037)	-	-	2	40	-	20	60	1
8	Mech. Engg.	Manufacturing ProcessLab	B037423(037)	-	-	2	40	-	20	60	1
9	Mech. Engg.	Virtual Lab	B037424(037)	-	-	2	40	-	20	60	1
10	Mandatory Course	Indian Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	-
			Total Marks	12	5	10	660	100	240	1000	21

*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.*

Note 1: Industrial Training of six weeks is mandatory for B.Tech. Students. It is to be completed in two parts. The first part will be in summer (after4V semester) after which students have to submit a training report which will be evaluated by the college teachers during V Semester.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of program: **Bachelor of Technology**

Branch: **Common to All Branches** Semester: **IV**

Subject: **Indian Culture and Constitution of India** Code: B000406(046)

Total Theory Periods: **2/Week** Total Tutorial Periods: **NIL**

Assignments: **Two (Minimum)** Total Marks in ESE: **NIL** Marks in TA: **10**

Objective: The Constitution is the supreme law and it helps to maintain **integrity** in the society and to promote unity among the citizens to build a great nation. The main objective of the Indian Constitution is to promote harmony throughout the nation.

Course Objectives

Upon completion of this course, the student shall be able

- To understand Meaning and concepts of Traditional and Modern of Culture
- To understand Sources of the Study of Indian Culture
- To Enable the student to understand the history and importance of constitution
- To understand philosophy of fundamental rights and duties
- To understand the powers and functions of executive, legislature and judiciary
- To understand the powers and functions of state government
- To understand the recent trends in Indian constitutional and election commission of India.

To understand the central and state relation, financial and administrative.

UNIT-I

Meaning and concepts of Culture: Traditional and Modern concepts of Culture-Notions of Culture in textual tradition, anthropological, archaeological and sociological understanding of the term culture. Elements of Culture, concept of Indianness and value system. Relation between culture and civilization. Historiography and approaches to the study of Indian Culture– Stereotypes, Objectivity and Bias, Imperialist, Nationalist, Marxist and Subaltern. Heritage of India and world's debt to Indian Culture.

UNIT–II

Sources of the Study of Indian Culture: Archaeological: cultural remains, Monuments, Numismatics, Epigraphy; Literary sources and Oral traditions; Foreign Accounts; Archival sources.

UNIT–III

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History of Indian Constitution Constitutional History, Preamble salient features, citizenship, Method of Amendment and Recent Amendments. **Rights and Duties** Fundamental Rights and Directive Principles of State Policy. Fundamental Duties. Difference between Fundamental Rights and Directive Principles of State Policy

Union Government a) President-powers and functions. Vice president powers and functions, Prime Minister and council of ministers powers and functions. b) Parliament- Loksabha, Rajyasabha- composition powers and functions. c) Judiciary (Supreme Court) composition powers and functions Judicial Activism

UNIT–IV

State Government a) Governor: powers and functions b) Chief minister: powers and functions c) State Legislative Assembly and Legislative Council- composition powers and functions. d) High Court : composition powers and functions

UNIT–V

Recent Trends in Indian Constitutional a) Basic structure of Indian Constitution. b) Electoral Reforms c) Panchayati Raj system in India.

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6. D.C.Gupta, Indian Government and Politics,VIII Edition,New Delhi, Vikas, 1994.
7. V.D.Mahajan, Constitutional Development and National Movement inIndia, New Delhi, S. Chand and Co., latest edition.

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Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester – Computer Science & Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Computer Science & Engineering	Microprocessors & Interfaces	C022511(022)	3	1		100	20	30	150	4
2.	Computer Science Engineering	Computer Networks	C022512(022)	3	1	-	100	20	30	150	4
3.	Computer Science Engineering	Formal Languages and Automata Theory	C022513(022)	3	1	-	100	20	30	150	4
4.	Computer Science Engineering	Data Analytics with Python	C022514(022)	2	1	-	100	20	30	150	3
5.	Professional Elective-I (Refer Table I)			2	0	-	100	20	30	150	2
6.	Computer Science Engineering	Microprocessors & Interfaces Laboratory	C022521(022)	-	-	2	40	-	20	60	1
7.	Computer Science Engineering	Computer Networks Laboratory	C022522(022)	-	-	2	40	-	20	60	1
8.	Computer Science Engineering	Data Analytics with Python Laboratory	C022523(022)	-	-	2	40	-	20	60	1
9.	Computer Science Engineering	Project-I based on Summer Internship/ Industrial Training	C022524(022)	-	-	2	40	-	20	60	1
10.	Civil Engg.	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

- Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after fourth semester, which will be evaluated in fifth semester.

Table I (Professional Elective I)

S.N.	Board of Studies	Course Code	Subject
1.	Computer Science Engineering	C022531(022)	Computer Graphics
2.	Computer Science Engineering	C022532(022)	Object Oriented Analysis & Design
3.	Computer Science Engineering	C022533(022)	Digital Image Processing
4.	Computer Science Engineering	C022534(022)	Multimedia & Virtual Reality

Note: (1) 1/4th 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.

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

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

Program / Semester: **B.Tech (V)**	Branch: **Computer Science &Engineering**
Subject: **Environmental Studies**	Course Code: **C000506(020)**
Total Marks (Internal Assessment): 10	L: 0 T:0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

PREREQUISITE: Knowledge of basic Chemistry, Physics and Mathematics.

COURSE OBJECTIVES:

1. Basic knowledge of environment, ecology, ecosystems, biodiversity and conservation.
2. Fundamentals of natural resources, control, uses and its impact on environment.
3. Human population, growth, growing needs and its impact on society and environment.
4. Types of environmental pollution, legislations, enactment and management.

UNIT I: Introduction to environmental studies, ecology and ecosystems **(06 hours)**

Introduction to environment; Concept and structure of ecology and ecosystem, energy flow; Community ecology; Food chains and webs; Ecological succession; Characteristic features of forest, grassland, desert and aquatic ecosystem; Multidisciplinary nature of environmental studies, scope and importance; Concept of sustainability and sustainable development.

UNIT II: Biodiversity and conservation **(06 hours)**

Introduction to biological diversity and levels of genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots; Threats to biodiversity, habitat loss, conflicts and biological invasions; In-situ and Ex-situ conservation of biodiversity: Ecosystem and biodiversity services.

UNIT III: Natural resources and environment **(08 hours)**

Concept of Renewable and non-renewable resources; Land resources, land use change, land degradation, soil erosion; Desertification; Deforestation: causes, consequences and remedial measures; Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state); Energy resources: environmental impacts of energy generation, use of alternative and nonconventional energy sources, growing energy needs.

UNIT IV: Human communities, social issues and environment **(08 hours)**

Basic concept of human population, growth and communities; Impacts on environment, human health, welfare and human rights; Resettlement and rehabilitation; Environmental natural disaster: floods, earthquake, cyclones, tsunami and landslides; Manmade disaster; Environmental movements; Environmental ethics: role of gender and cultures in environmental conservation; Environmental education and public awareness; Human health risks and preventive measurements.

UNIT V: Environmental pollution, policies, legislations, assessment and practices **(12 hours)**

Environmental pollution: Causes, effects and controls of air, water, soil, noise and marine pollution; Concept of hazardous and non-hazardous wastes, biomedical and e-wastes; Solid waste management and control measures; Climate change, global warming, ozone layer depletion, acid rain and their societal impacts; Environment laws: Wildlife Protection Act, Forest Conservation Act, Water (Prevention and control of Pollution) Act, Air (Prevention & Control of Pollution) Act, Environment Protection Act, Biodiversity Act, International agreements negotiations, protocols and practices; EIA, EMP.

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On completion of each unit, students have to submit one assignment from each unit.

COURSE OUTCOMES (CO) [On completion of the course, students will able to:]

1. Interpret and demonstrate the concept of ecology and ecosystem for environmental sustainability.
2. Define and establish the diversified knowledge of biodiversity and its conservation.
3. Explain the uses of natural resources efficiently and its impact on environment.
4. Illustrate and solve the simple and complex social issues relating to human communities.
5. Exemplify and make useful solution to combat the environmental degradation with the aid of national and international legislations and protocols there under.
6. Demonstrate and elucidate the complicated issues and anthropological problems for societal development.
7.

TEXT BOOKS:

1. De, A.K., (2006).*Environmental Chemistry*, 6th Edition, New Age International, New Delhi.
2. Bharucha, E. (2013). *Textbook of Environmental Studies for Undergraduate Courses*. Universities Press.
3. Asthana, D. K. (2006).*Text Book of Environmental Studies*. S. Chand Publishing.

REFERENCE BOOKS:

1. Odum, E. P., Odum, H. T., & Andrews, J. (1971).*Fundamentals of ecology*. Philadelphia: Saunders.
2. Basu, M., Xavier, S. (2016). Fundamentals of Environmental Studies, Cambridge University Press, India.
3. Sharma, P. D., & Sharma, P. D. (2005).*Ecology and Environment*. Rastogi Publications.

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Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester - ELECTRICAL ENGINEERING)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	L	T	P	Theory/Lab ESE	CT	TA	Total Marks	Credits
1.	Electrical Engg.	Control System	C024511(024)	3	1	-	100	20	30	150	4
2.	Electrical Engg.	Power System Analysis	C024512(024)	3	1	-	100	20	30	150	4
3.	Electrical Engg.	Power Electronics	C024513(024)	3	1	-	100	20	30	150	4
4.	Electrical Engg.	Electrical Measurements	C024514(024)	2	1	-	100	20	30	150	3
5.	Electrical Engg.	**Professional Elective –I(Refer Table I)**		2	0	-	100	20	30	150	2
6.	Electrical Engg.	Control System LAB	C024521(024)	-	-	2	40	-	20	60	1
7.	Electrical Engg.	Electrical Measurements LAB	C024522(024)	-	-	2	40	-	20	60	1
8.	Electrical Engg.	Power Electronics Lab	C024523(024)	-	-	2	40	-	20	60	1
9.	Electrical Engg.	Project-I based on Summer Internship/ Industrial Training	C024524(024)	-	-	2	40	-	20	60	1
10.	Non-Credit	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

Table I (Professional Elective I)

S.N.	Board of Studies	Course Code	Subject
1	Electrical Engg.	C024531(024)	Analog and Digital Communication
2	Electrical Engg.	C024532(024)	Computer System Architecture
3	Electrical Engg.	C024533(024)	Power Plant Engineering
4	Electrical Engg.	C024534(024)	Electric Machine Design

Note: (1) 1/4th 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.

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

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of the Program: **BTech**	Semester: **V**
Subject: **Environmental Studies**	Code: C000506(020)
Period per week (L-T-P): **(2-0-0) / Week**	Non-Credit
Total Contact Hours: **40**	No. of assignments to be submitted: **05**

PREREQUISITE: Knowledge of basic Chemistry, Physics and Mathematics.

COURSE OBJECTIVES:

1. Basic knowledge of environment, ecology, ecosystems, biodiversity and conservation.
2. Fundamentals of natural resources, control, uses and its impact on environment.
3. Human population, growth, growing needs and its impact on society and environment.
4. Types of environmental pollution, legislations, enactment and management.

COURSE DETAILS:

UNIT I: Introduction to environmental studies, ecology and ecosystems **(06 hours)**

Introduction to environment; Concept and structure of ecology and ecosystem, energy flow; Community ecology; Food chains and webs; Ecological succession; Characteristic features of forest, grassland, desert and aquatic ecosystem; Multidisciplinary nature of environmental studies, scope and importance; Concept of sustainability and sustainable development.

UNIT II: Biodiversity and conservation **(06 hours)**

Introduction to biological diversity and levels of genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots; Threats to biodiversity, habitat loss, conflicts and biological invasions; In-situ and Ex-situ conservation of biodiversity: Ecosystem and biodiversity services.

UNIT III: Natural resources and environment **(08 hours)**

Concept of Renewable and non-renewable resources; Land resources, land use change, land degradation, soil erosion; Desertification; Deforestation: causes, consequences and remedial measures; Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state); Energy resources: environmental impacts of energy generation, use of alternative and nonconventional energy sources, growing energy needs.

UNIT IV: Human communities, social issues and environment **(08 hours)**

Basic concept of human population, growth and communities; Impacts on environment, human health, welfare and human rights; Resettlement and rehabilitation; Environmental natural disaster: floods, earthquake, cyclones, tsunami and landslides; Manmade disaster; Environmental movements; Environmental ethics: role of gender and cultures in environmental conservation; Environmental education and public awareness; Human health risks and preventive measurements.

UNIT V: Environmental pollution, policies, legislations, assessment and practices **(12 hours)**

Environmental pollution: Causes, effects and controls of air, water, soil, noise and marine pollution; Concept of hazardous and non-hazardous wastes, biomedical and e-wastes; Solid waste management and control measures; Climate change, global warming, ozone layer depletion, acid rain and their societal impacts; Environment laws: Wildlife Protection Act, Forest Conservation Act, Water (Prevention and control of Pollution) Act, Air (Prevention & Control of Pollution) Act, Environment Protection Act, Biodiversity Act, International agreements negotiations, protocols and practices; EIA, EMP.

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On completion of each unit, students have to submit one assignment from each unit.

COURSE OUTCOMES (CO):

On completion of the course, students will able to:

1. Interpret and demonstrate the concept of ecology and ecosystem for environmental sustainability.
2. Define and establish the diversified knowledge of biodiversity and its conservation.
3. Explain the uses of natural resources efficiently and its impact on environment.
4. Illustrate and solve the simple and complex social issues relating to human communities.
5. Exemplify and make useful solution to combat the environmental degradation with the aid of national and international legislations and protocols there under.
6. Demonstrate and elucidate the complicated issues and anthropological problems for societal development.

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3. Sharma, P. D., & Sharma, P. D. (2005).*Ecology and Environment*. Rastogi Publications.

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Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester - Electronics & Telecommunication Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Electronics & Telecom.	Digital Communication	C028511(028)	3	1		100	20	30	150	4
2.	Electronics & Telecom.	Design of Electronics Circuit	C028512(028)	3	1	-	100	20	30	150	4
3.	Electronics & Telecom.	Microcontroller & embedded system	C028513(028)	3	1	-	100	20	30	150	4
4.	Electronics & Telecom.	Control Systems	C028514(028)	2	1	-	100	20	30	150	3
5.	Professional Elective-1 (Refer Table I)			2	0	-	100	20	30	150	2
6.	Electronics & Telecom.	Digital Communication lab	C028521(028)	-	-	2	40	-	20	60	1
7.	Electronics & Telecom.	Design of Electronics Circuit lab	C028522(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Microcontroller & embedded system lab	C028523(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	Project-I based on Summer Internship/ Industrial Training	C028521(028)	-	-	2	40	-	20	60	1
10.	Civil Engg.	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

- Note: - The students has to attended the four weeks industrial training / summer internship in B. Tech program after fourth semester, which will be evaluated in fifth semester.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of the Program: **BTech**	Semester: **V**
Subject: **Environmental Studies**	Code: C000506(020)
Period per week (L-T-P): **(2-0-0) / Week**	Non-Credit
Total Contact Hours: **40**	No. of assignments to be submitted: **05**

PREREQUISITE: Knowledge of basic Chemistry, Physics and Mathematics.

COURSE OBJECTIVES:

1. Basic knowledge of environment, ecology, ecosystems, biodiversity and conservation.
2. Fundamentals of natural resources, control, uses and its impact on environment.
3. Human population, growth, growing needs and its impact on society and environment.
4. Types of environmental pollution, legislations, enactment and management.

COURSE DETAILS:

UNIT I: Introduction to environmental studies, ecology and ecosystems **(06 hours)**

Introduction to environment; Concept and structure of ecology and ecosystem, energy flow; Community ecology; Food chains and webs; Ecological succession; Characteristic features of forest, grassland, desert and aquatic ecosystem; Multidisciplinary nature of environmental studies, scope and importance; Concept of sustainability and sustainable development.

UNIT II: Biodiversity and conservation **(06 hours)**

Introduction to biological diversity and levels of genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots; Threats to biodiversity, habitat loss, conflicts and biological invasions; In-situ and Ex-situ conservation of biodiversity: Ecosystem and biodiversity services.

UNIT III: Natural resources and environment **(08 hours)**

Concept of Renewable and non-renewable resources; Land resources, land use change, land degradation, soil erosion; Desertification; Deforestation: causes, consequences and remedial measures; Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state); Energy resources: environmental impacts of energy generation, use of alternative and nonconventional energy sources, growing energy needs.

UNIT IV: Human communities, social issues and environment **(08 hours)**

Basic concept of human population, growth and communities; Impacts on environment, human health, welfare and human rights; Resettlement and rehabilitation; Environmental natural disaster: floods, earthquake, cyclones, tsunami and landslides; Manmade disaster; Environmental movements; Environmental ethics: role of gender and cultures in environmental conservation; Environmental education and public awareness; Human health risks and preventive measurements.

UNIT V: Environmental pollution, policies, legislations, assessment and practices **(12 hours)**

Environmental pollution: Causes, effects and controls of air, water, soil, noise and marine pollution; Concept of hazardous and non-hazardous wastes, biomedical and e-wastes; Solid waste management and control measures; Climate change, global warming, ozone layer depletion, acid rain and their societal impacts; Environment laws: Wildlife Protection Act, Forest Conservation Act, Water (Prevention and control of Pollution) Act, Air (Prevention & Control of Pollution) Act, Environment Protection Act, Biodiversity Act, International agreements negotiations, protocols and practices; EIA, EMP.

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On completion of each unit, students have to submit one assignment from each unit.

COURSE OUTCOMES (CO):

On completion of the course, students will able to:

1. Interpret and demonstrate the concept of ecology and ecosystem for environmental sustainability.
2. Define and establish the diversified knowledge of biodiversity and its conservation.
3. Explain the uses of natural resources efficiently and its impact on environment.
4. Illustrate and solve the simple and complex social issues relating to human communities.
5. Exemplify and make useful solution to combat the environmental degradation with the aid of national and international legislations and protocols there under.
6. Demonstrate and elucidate the complicated issues and anthropological problems for societal development.

TEXT BOOKS:

1. De, A.K., (2006).*Environmental Chemistry*, 6th Edition, New Age International, New Delhi.
2. Bharucha, E. (2013). *Textbook of Environmental Studies for Undergraduate Courses*. Universities Press.
3. Asthana, D. K. (2006).*Text Book of Environmental Studies*. S. Chand Publishing.

REFERENCE BOOKS:

1. Odum, E. P., Odum, H. T., & Andrews, J. (1971).*Fundamentals of ecology*. Philadelphia: Saunders.
2. Basu, M., Xavier, S. (2016). Fundamentals of Environmental Studies, Cambridge University Press, India.
3. Sharma, P. D., & Sharma, P. D. (2005).*Ecology and Environment*. Rastogi Publications.

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Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester – Mechanical Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Marks Total	Credits
				L	T	P	ESE	CT	TA		
1.	Mech. Engg.	Internal Combustion Engine	C037511(037)	2	1		100	20	30	150	3
2.	Mech. Engg.	Solid Mechanics	C037512(037)	3	1	-	100	20	30	150	4
3.	Mech. Engg.	Fluid Machines	C037513(037)	2	1	-	100	20	30	150	4
4.	Mech. Engg.	Dynamics of Machine	C037514(037)	3	1	-	100	20	30	150	3
5.	Professional Elective-I (Refer Table I)			2	1	-	100	20	30	150	3
6.	Mech. Engg.	Internal Combustion Engine Lab	C037521(037)	-	-	2	40	-	20	60	1
7.	Mech. Engg.	Dynamics of Machine Lab	C037522(037)	-	-	2	40	-	20	60	1
8.	Mech. Engg.	Fluid Machines Lab	C037523(037)	-	-	2	40	-	20	60	1
9.	Mech. Engg.	Project-I based on Summer Internship/ Industrial Training	C037524(037)	-	-	2	40	-	20	60	1
10.	Civil Engg.	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
			Total	13	5	10	660	100	240	1000	21

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

- Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after fourth semester, which will be evaluated in fifth semester.

Table I (Professional Elective I)

S.N.	Board of Studies	Course Code	Subject
1.	Mechanical Engg.	C037531(037)	Operation Research
2.	Mechanical Engg	C037532(037)	Composite Materials
3.	Mechanical Engg.	C037533(037)	Gas Dynamics and Jet Propulsion

Note: (1) 1/4th 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.
(2) Choice of elective course once made for an examination cannot be changed in future examinations.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of the Program: **BTech**	Semester: **V**
Subject: **Environmental Studies**	Code: C000506(020)
Period per week (L-T-P): **(2-0-0) / Week**	Non-Credit
Total Contact Hours: **40**	No. of assignments to be submitted: **05**

PREREQUISITE: Knowledge of basic Chemistry, Physics and Mathematics.

COURSE OBJECTIVES:

1. Basic knowledge of environment, ecology, ecosystems, biodiversity and conservation.
2. Fundamentals of natural resources, control, uses and its impact on environment.
3. Human population, growth, growing needs and its impact on society and environment.
4. Types of environmental pollution, legislations, enactment and management.

COURSE DETAILS:

UNIT I: Introduction to environmental studies, ecology and ecosystems **(06 hours)**

Introduction to environment; Concept and structure of ecology and ecosystem, energy flow; Community ecology; Food chains and webs; Ecological succession; Characteristic features of forest, grassland, desert and aquatic ecosystem; Multidisciplinary nature of environmental studies, scope and importance; Concept of sustainability and sustainable development.

UNIT II: Biodiversity and conservation **(06 hours)**

Introduction to biological diversity and levels of genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots; Threats to biodiversity, habitat loss, conflicts and biological invasions; In-situ and Ex-situ conservation of biodiversity: Ecosystem and biodiversity services.

UNIT III: Natural resources and environment **(08 hours)**

Concept of Renewable and non-renewable resources; Land resources, land use change, land degradation, soil erosion; Desertification; Deforestation: causes, consequences and remedial measures; Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state); Energy resources: environmental impacts of energy generation, use of alternative and nonconventional energy sources, growing energy needs.

UNIT IV: Human communities, social issues and environment **(08 hours)**

Basic concept of human population, growth and communities; Impacts on environment, human health, welfare and human rights; Resettlement and rehabilitation; Environmental natural disaster: floods, earthquake, cyclones, tsunami and landslides; Manmade disaster; Environmental movements; Environmental ethics: role of gender and cultures in environmental conservation; Environmental education and public awareness; Human health risks and preventive measurements.

UNIT V: Environmental pollution, policies, legislations, assessment and practices **(12 hours)**

Environmental pollution: Causes, effects and controls of air, water, soil, noise and marine pollution; Concept of hazardous and non-hazardous wastes, biomedical and e-wastes; Solid waste management and control measures; Climate change, global warming, ozone layer depletion, acid rain and their societal impacts; Environment laws: Wildlife Protection Act, Forest Conservation Act, Water (Prevention and control of Pollution) Act, Air (Prevention & Control of Pollution) Act, Environment Protection Act, Biodiversity Act, International agreements negotiations, protocols and practices; EIA, EMP.

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On completion of each unit, students have to submit one assignment from each unit.

COURSE OUTCOMES (CO):

On completion of the course, students will able to:

1. Interpret and demonstrate the concept of ecology and ecosystem for environmental sustainability.
2. Define and establish the diversified knowledge of biodiversity and its conservation.
3. Explain the uses of natural resources efficiently and its impact on environment.
4. Illustrate and solve the simple and complex social issues relating to human communities.
5. Exemplify and make useful solution to combat the environmental degradation with the aid of national and international legislations and protocols there under.
6. Demonstrate and elucidate the complicated issues and anthropological problems for societal development.

TEXT BOOKS:

1. De, A.K., (2006).*Environmental Chemistry*, 6th Edition, New Age International, New Delhi.
2. Bharucha, E. (2013). *Textbook of Environmental Studies for Undergraduate Courses*. Universities Press.
3. Asthana, D. K. (2006).*Text Book of Environmental Studies*. S. Chand Publishing.

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1. Odum, E. P., Odum, H. T., & Andrews, J. (1971).*Fundamentals of ecology*. Philadelphia: Saunders.
2. Basu, M., Xavier, S. (2016). Fundamentals of Environmental Studies, Cambridge University Press, India.
3. Sharma, P. D., & Sharma, P. D. (2005).*Ecology and Environment*. Rastogi Publications.

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Chhattisgarh Swami VivekanandTechnical University

(CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Computer Science Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Computer Science Engg.	Compiler Design	C022611(022)	3	1	-	100	20	30	150	4
2.	Computer Science Engg.	Software Engineering & Project Management	C022612(022)	3	1	-	100	20	30	150	4
3.	Computer Science Engg.	Artificial Intelligence & Expert Systems	C022613(022)	3	1	-	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	-	100	20	30	150	3
5.	Open Elective – I (Refer Table III)			2	0	-	100	20	30	150	2
6.	Computer Science Engg.	Software Engineering & Project Management Laboratory	C022621(022)	-	-	2	40	-	20	60	1
7.	Computer Science Engg.	Artificial Intelligence & Expert Systems Laboratory	C022622(022)	-	-	2	40	-	20	60	1
8.	Professional Elective –II(Lab) (Refer Table II)			-	-	2	40	-	20	60	1
9.	Computer Science Engg.	Android Application Laboratory	C022627(022)	-	-	2	40	-	20	60	1
10.	Non-Credit	Technical Communication and Soft Skill	C000601(046)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Computer Science Engg	Web Technologies	C022631(022)
2.	Computer Science Engg	Internet Of Things	C022632(022)
3.	Computer Science Engg	Soft Computing	C022633(022)
4.	Computer Science Engg	Network Programming	C022634(022)

Table II (Professional Elective II Lab)

S.N.	Board of Studies	Subject	Course Code
1.	Computer Science Engg	Web Technologies lab	C022623(022)
2.	Computer Science Engg	Internet Of Things Lab	C022624(022)
3.	Computer Science Engg	Soft Computing Lab	C022625(022)
4.	Computer Science Engg	Network Programming Lab	C022626(022)

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Program / Semester: **B.Tech (VI)**	Branch: **Humanities**
Subject: **Technical Communication & Soft Skills**	Course Code: **C000601(046)**
Total Marks (Internal Assessment): 10	L: 0 T:0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

UNIT-1 Communication Skills-Basics: Understanding the communicative environment, Verbal Communication; Non Verbal Communication & Cross Cultural Communication, Body Language & Listening Skills; Employment Communication&writing CVs, Cover Letters for correspondence.Common errors during communication, Humour in Communication.

UNIT-2 Interpersonal communication: Presentation, Interaction and Feedbacks, Stage Manners, Group Discussions (GDs) and facing Personal Interviews, Building Relationships, Understanding Group Dynamics- I, Emotional and Social Skills, Groups, Conflicts and their Resolution, Social Network, Media and Extending Our Identities.

UNIT- 3 Vocational skills: Managing time: Planning and Goalsetting, managing stress: Types of Stress; Making best out of Stress, Resilience, Work-life balance, Applying soft-skills to workplace.

UNIT-4 Mindsets and Handling People: Definitions and types of Mindset, Learning Mindset, Developing Growth Mindset, Types of People, How to Lead a Meeting, How to Speak Effectively in Meetings, Behavior & Roles in Meetings, Role Play: Meeting.On Saying "Please", How to say "NO".

UNIT-5Positive Psehyeology: Motivating oneself, Persuasion, Survival Strategies, Negotiation, Leadership and motivating others, controlling anger, Gaining Power from Positive Thinking.

Text Books:

1. Petes S. J., Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
2. Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.
3. Dorch, Patricia. What Are Soft Skills? New York: Execu Dress Publisher, 2013.

Reference Books:

- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
- Peale Norman Vincent. The Power of Positive Thinking: 10 Traits for Maximum Result. Paperback Publication. 2011.
- Klaus, Peggy, Jane Rohman& Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.

Course Outcomes

1. Learn to listen actively to analyse audience and tailor the delivery accordingly.
2. Increase their awareness of communication behaviour by using propriety-profiling tool.
3. Master three "As" of stressful situation: Avoid, Alter, Accept; to cope with stressors and create a plan to reduce or eliminate them.
4. Develop growth mind-set and able to handle difficult person and situations successfully.
5. Develop technique of turning negativity into positivity and generate self-motivation skills.

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Chhattisgarh Swami VivekanandTechnical University

(CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Electrical Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Electrical Engg.	Instrumentation Techniques	C024611(024)	3	1	-	100	20	30	150	4
2.	Electrical Engg.	Switchgear and Protection	C024612(024)	3	1	-	100	20	30	150	4
3.	Electrical Engg.	Microprocessor and its Applications	C024613(024)	3	1	-	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	-	100	20	30	150	3
5.	Open Elective – I (Refer Table II)			2	0	-	100	20	30	150	2
6.	Electrical Engg.	Instrumentation Techniques Lab	C024621(024)	-	-	2	40	-	20	60	1
7.	Electrical Engg.	Switchgear and Protection LAB	C024622(024)	-	-	2	40	-	20	60	1
8.	Electrical Engg.	Microprocessors LAB	C024623(024)	-	-	2	40	-	20	60	1
9.	Electrical Engg.	Programming and Simulation Lab	C024624(024)	-	-	2	40	-	20	60	1
10.	Humanities	Technical Communication and Soft Skill	C000601(046)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Electrical Engineering	Fibre Optics	C024631(024)
2.	Electrical Engineering	Microcontroller and Embedded System	C024632(024)
3.	Electrical Engineering	Hybrid Electric vehicle	C024633(024)
4.	Electrical Engineering	Digital Control System	C024634(024)

Note: (1) 1/4th 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.
(2) Choice of elective course once made for an examination cannot be changed in future examinations.

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Program / Semester: **B.Tech (VI)**	Branch: **Humanities**
Subject: **Technical Communication & Soft Skills**	Course Code: **C000601(046)**
Total Marks (Internal Assessment): 10	L: 0 T:0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

UNIT-1 Communication Skills-Basics: Understanding the communicative environment, Verbal Communication; Non Verbal Communication & Cross Cultural Communication, Body Language & Listening Skills; Employment Communication&writing CVs, Cover Letters for correspondence.Common errors during communication, Humour in Communication.

UNIT-2 Interpersonal communication: Presentation, Interaction and Feedbacks, Stage Manners, Group Discussions (GDs) and facing Personal Interviews, Building Relationships, Understanding Group Dynamics- I, Emotional and Social Skills, Groups, Conflicts and their Resolution, Social Network, Media and Extending Our Identities.

UNIT- 3 Vocational skills: Managing time: Planning and Goalsetting, managing stress: Types of Stress; Making best out of Stress, Resilience, Work-life balance, Applying soft-skills to workplace.

UNIT-4 Mindsets and Handling People: Definitions and types of Mindset, Learning Mindset, Developing Growth Mindset, Types of People, How to Lead a Meeting, How to Speak Effectively in Meetings, Behavior & Roles in Meetings, Role Play: Meeting.On Saying "Please", How to say "NO".

UNIT-5Positive Pschycology: Motivating oneself, Persuasion, Survival Strategies, Negotiation, Leadership and motivating others, controlling anger, Gaining Power from Positive Thinking.

Text Books:

1. Petes S. J., Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
2. Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.
3. Dorch, Patricia. What Are Soft Skills? New York: Execu Dress Publisher, 2013.

Reference Books:

- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
- Peale Norman Vincent. The Power of Positive Thinking: 10 Traits for Maximum Result. Paperback Publication. 2011.
- Klaus, Peggy, Jane Rohman& Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.

Course Outcomes

1. Learn to listen actively to analyse audience and tailor the delivery accordingly.
2. Increase their awareness of communication behaviour by using propriety-profiling tool.
3. Master three "As" of stressful situation: Avoid, Alter, Accept; to cope with stressors and create a plan to reduce or eliminate them.
4. Develop growth mind-set and able to handle difficult person and situations successfully.
5. Develop technique of turning negativity into positivity and generate self-motivation skills.

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Chhattisgarh Swami VivekanandTechnical University

(CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Electronics and Telecommunication Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Electronics & Telecom.	VLSI Design	C028611(028)	3	1	-	100	20	30	150	4
2.	Electronics & Telecom.	Antenna & Wave Propagation	C028612(028)	3	1	-	100	20	30	150	4
3.	Electronics & Telecom.	Digital Signal Processing	C028613(028)	3	1	-	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	-	100	20	30	150	3
5.	Open Elective – I (Refer Table II)			2	0	-	100	20	30	150	2
6.	Electronics & Telecom.	VLSI Design lab	C028621(028)	-	-	2	40	-	20	60	1
7.	Electronics & Telecom.	Digital Signal Processing lab	C028622(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Machine Learning Lab	C028623(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	Soft Computing lab	C028624(028)	-	-	2	40	-	20	60	1
10.	Humanities	Technical Communication and Soft Skill	C000601(046)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Electronics & Telecom.	Information Theory and coding	C028631(028)
2.	Electronics & Telecom.	Microelectronics Technology	C028632(028)
3.	Electronics & Telecom.	ARM System Architecture	C028633(028)
4.	Electronics & Telecom.	Image Processing & remote sensing	C028634(028)
5.	Electronics & Telecom.	Wireless Sensor Networks	C028635(028)

Note: (1) 1/4th 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.
(2) Choice of elective course once made for an examination cannot be changed in future examinations.

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Program / Semester: **B.Tech (VI)**	Branch: **Humanities**
Subject: **Technical Communication & Soft Skills**	Course Code: **C000601(046)**
Total Marks (Internal Assessment): 10	L: 0 T:0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

UNIT-1 Communication Skills-Basics: Understanding the communicative environment, Verbal Communication; Non Verbal Communication & Cross Cultural Communication, Body Language & Listening Skills; Employment Communication&writing CVs, Cover Letters for correspondence.Common errors during communication, Humour in Communication.

UNIT-2 Interpersonal communication: Presentation, Interaction and Feedbacks, Stage Manners, Group Discussions (GDs) and facing Personal Interviews, Building Relationships, Understanding Group Dynamics- I, Emotional and Social Skills, Groups, Conflicts and their Resolution, Social Network, Media and Extending Our Identities.

UNIT- 3 Vocational skills: Managing time: Planning and Goalsetting, managing stress: Types of Stress; Making best out of Stress, Resilience, Work-life balance, Applying soft-skills to workplace.

UNIT-4 Mindsets and Handling People: Definitions and types of Mindset, Learning Mindset, Developing Growth Mindset, Types of People, How to Lead a Meeting, How to Speak Effectively in Meetings, Behavior & Roles in Meetings, Role Play: Meeting.On Saying "Please", How to say "NO".

UNIT-5Positive Psychyology: Motivating oneself, Persuasion, Survival Strategies, Negotiation, Leadership and motivating others, controlling anger, Gaining Power from Positive Thinking.

Text Books:

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- Peale Norman Vincent. The Power of Positive Thinking: 10 Traits for Maximum Result. Paperback Publication. 2011.
- Klaus, Peggy, Jane Rohman& Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.

Course Outcomes

1. Learn to listen actively to analyse audience and tailor the delivery accordingly.
2. Increase their awareness of communication behaviour by using propriety-profiling tool.
3. Master three "As" of stressful situation: Avoid, Alter, Accept; to cope with stressors and create a plan to reduce or eliminate them.
4. Develop growth mind-set and able to handle difficult person and situations successfully.
5. Develop technique of turning negativity into positivity and generate self-motivation skills.

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Chhattisgarh Swami VivekanandTechnical University

(CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Mechanical Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Mech. Engg.	Design of Machine Elements	C037611(037)	3	1	-	100	20	30	150	4
2.	Mech. Engg.	Manufacturing Technology	C037612(037)	3	1	-	100	20	30	150	4
3.	Mech. Engg.	Heat & Mass Transfer	C037613(037)	3	1	-	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	-	100	20	30	150	3
5.	Open Elective – I (Refer Table II)			2	0	-	100	20	30	150	2
6.	Mech. Engg.	Design of Machine Elements Lab	C037621(037)	-	-	2	40	-	20	60	1
7.	Mech. Engg.	Computer Aided Modeling &Analysis Lab	C037622(037)	-	-	2	40	-	20	60	1
8.	Mech. Engg.	Heat & Mass Transfer Lab	C037623(037)	-	-	2	40	-	20	60	1
9.	Mech. Engg.	Virtual Lab-2	C037624(037)	-	-	2	40	-	20	60	1
10.	Humanities	Technical Communication and Soft Skill	C000601(046)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

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

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Mechanical Engineering	Finite Element Analysis	C037631(037)
2.	Mechanical Engineering	Power Plant Engineering	C037632(037)
3.	Mechanical Engineering	Maintenance and Reliability	C037633(037)

Note: (1) 1/4th 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.
(2) Choice of elective course once made for an examination cannot be changed in future examinations.

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Program / Semester: **B.Tech (VI)**	Branch: **Humanities**
Subject: **Technical Communication & Soft Skills**	Course Code: **C000601(046)**
Total Marks (Internal Assessment): 10	L: 0 T:0 P: 2 Credit(s): 0
Internal Assessments to be conducted: 02	Duration (End Semester Exam): **NA**

UNIT-1 Communication Skills-Basics: Understanding the communicative environment, Verbal Communication; Non Verbal Communication & Cross Cultural Communication, Body Language & Listening Skills; Employment Communication&writing CVs, Cover Letters for correspondence.Common errors during communication, Humour in Communication.

UNIT-2 Interpersonal communication: Presentation, Interaction and Feedbacks, Stage Manners, Group Discussions (GDs) and facing Personal Interviews, Building Relationships, Understanding Group Dynamics- I, Emotional and Social Skills, Groups, Conflicts and their Resolution, Social Network, Media and Extending Our Identities.

UNIT- 3 Vocational skills: Managing time: Planning and Goalsetting, managing stress: Types of Stress; Making best out of Stress, Resilience, Work-life balance, Applying soft-skills to workplace.

UNIT-4 Mindsets and Handling People: Definitions and types of Mindset, Learning Mindset, Developing Growth Mindset, Types of People, How to Lead a Meeting, How to Speak Effectively in Meetings, Behavior & Roles in Meetings, Role Play: Meeting.On Saying "Please", How to say "NO".

UNIT-5Positive Psyhcology: Motivating oneself, Persuasion, Survival Strategies, Negotiation, Leadership and motivating others, controlling anger, Gaining Power from Positive Thinking.

Text Books:

1. Petes S. J., Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
2. Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.
3. Dorch, Patricia. What Are Soft Skills? New York: Execu Dress Publisher, 2013.

Reference Books:

- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
- Peale Norman Vincent. The Power of Positive Thinking: 10 Traits for Maximum Result. Paperback Publication. 2011.
- Klaus, Peggy, Jane Rohman& Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.

Course Outcomes

1. Learn to listen actively to analyse audience and tailor the delivery accordingly.
2. Increase their awareness of communication behaviour by using propriety-profiling tool.
3. Master three "As" of stressful situation: Avoid, Alter, Accept; to cope with stressors and create a plan to reduce or eliminate them.
4. Develop growth mind-set and able to handle difficult person and situations successfully.
5. Develop technique of turning negativity into positivity and generate self-motivation skills.

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Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester – Computer Science Engineering)

S.N.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credits
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Computer Science Engg.	Machine Learning	D022711(022)	3	1	-	100	20	30	150	4
2.	Computer Science Engg.	Data Mining and Warehousing	D022712(022)	2	1	-	100	20	30	150	3
3.	Computer Science Engg.	Internet and Web Technology	D022713(022)	2	1	-	100	20	30	150	3
4.	*Professional Elective –III (Refer to Table I)*			1	1	-	100	20	30	150	2
5.	*Open Elective- II (Refer to Table II)*			2	0	-	100	20	30	150	2
6.	Computer Science Engg.	Machine Learning Lab	D022721(022)	-	-	2	40	-	20	60	1
7.	Computer Science Engg.	Internet and Web Technology Lab	D022722(022)	-	-	2	40	-	20	60	1
8.	Computer Science Engg.	Project (Phase I)	D022723(022)	-	-	6	60	-	40	100	3
9.	Computer Science Engg.	Industrial Training	D022724(022)			2			20	20	1
10	Humanities	Universal Human Values 2	D000701(046)	-	-	2	-	-	10	10	-
			Total Marks	10	4	14	640	100	260	1000	20

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

- Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Computer Science Engg.	D022731(022)	Parallel and Distributed Algorithms
2.	Computer Science Engg.	D022732(022)	Cyber Security
3.	Computer Science Engg.	D022733(022)	Quantum Computing
4.	Computer Science Engg.	D022734(022)	Distributing Systems

Note: (1) 1/4th 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.

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

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Name of the Program: Bachelor of Technology
Semester: B. Tech – 7th
Subject: Universal Human values 2
Total Marks in End Semester Exam:
Minimum number of Class Tests: 2

Branch: Computer Science Engg.
Course Code: D000701(046)
L: T: P: 2 Credits: 0

Course Objective(s):

- Development of a holistic perspective based on self- exploration about themselves (human being), family, society and nature/existence.
- Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
- Strengthening of self-reflection.
- Development of commitment and courage to act.

UNIT-I Introduction- Need, Basic Guidelines, Content and Process for Value Education

- Purpose and motivation for the course, recapitulation from Universal Human Values-I.
- Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration.
- Continuous Happiness and Prosperity- A look at basic Human Aspirations
- Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority.
- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- Method to fulfill the above human aspirations: understanding and living in harmony at various levels.
- Include practice sessions to discuss natural acceptance in human being as the innate acceptance for living with responsibility (living in relationship, harmony and co-existence) rather than as arbitrariness in choice based on liking-disliking.

UNIT-II Understanding Harmony in the Human Being - Harmony in Myself!

- Understanding the needs of Self ('I') and 'Body' - happiness and physical facility.
- Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer).
- Understanding the characteristics and activities of 'I' and harmony in 'I'.
- Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail.
- Programs to ensure Sanyam and Health.
- Include practice sessions to discuss the role others have played in making material goods available to me. Identifying from one's own life.
- Differentiate between prosperity and accumulation. Discuss program for ensuring health vs dealing with disease

UNIT-III Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

- Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship
- Understanding the meaning of Trust; Difference between intention and competence
- Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship
- Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals
- Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.

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- Include practice sessions to reflect on relationships in family, hostel and institute as extended family, real life examples, teacher-student relationship, goal of education etc. Gratitude as a universal value in relationships. Discuss with scenarios. Elicit examples from students' lives.

UNIT-IV Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

- Understanding the harmony in the Nature
- Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature.
- Understanding Existence as Co-existence of mutually interacting units in all-pervasive space.
- Holistic perception of harmony at all levels of existence.
- Include practice sessions to discuss human being as cause of imbalance in nature (film "Home" can be used), pollution, depletion of resources and role of technology etc.

UNIT-V Implications of the above Holistic Understanding of Harmony on Professional Ethics

- Natural acceptance of human values
- Definitiveness of Ethical Human Conduct
- Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- Strategy for transition from the present state to Universal Human Order:
  - At the level of individual: as socially and ecologically responsible engineers, technologists and managers
  - At the level of society: as mutually enriching institutions and organizations
- Include practice Exercises and Case Studies will be taken up in Practice (tutorial) Sessions e.g. to discuss the conduct as an engineer or scientist etc.

Text Books:

1. Human Values and Professional Ethics by R R Gaur, R Sangal, G P Bagaria, Excel Books, New Delhi, 2010
2. Human Values, A.N. Tripathi, New Age Intl. Publishers, New Delhi, 2004.
3. Jeevan Vidya: EkParichaya, A Nagaraj, Jeevan Vidya Prakashan, Amarkantak, 1999.

Reference Books:

1. The Story of Stuff (Book).
2. The Story of My Experiments with Truth - by Mohandas Karamchand Gandhi.
3. Small is Beautiful - E. F Schumacher.

Course Outcome:

After completion of course, student should be able to

- To become more aware of themselves, and their surroundings (family, society, nature); they would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
- They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.

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Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester – Electrical Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Electrical Engg.	Electric Drives	D024711(024)	3	1	-	100	20	30	150	4
2.	Electrical Engg.	Power Apparatus System	D024712(024)	2	1	-	100	20	30	150	3
3.	Electrical Engg.	High Voltage Engineering	D024713(024)	2	1	-	100	20	30	150	3
4.	*Professional Elective –III (Refer to Table I)*			1	1	-	100	20	30	150	2
5.	*Open Elective- II (Refer to Table II)*			2	0	-	100	20	30	150	2
6.	Electrical Engg.	Electric Drives Laboratory	D024721(024)	-	-	2	40	-	20	60	1
7.	Electrical Engg.	High Voltage Engineering Laboratory	D024722(024)	-	-	2	40	-	20	60	1
8.	Electrical Engg.	Project (Phase I)	D024723(024)	-	-	6	60	-	40	100	3
9.	Electrical Engg.	Industrial Training	D024724(024)			2			20	20	1
10.	Humanities	Universal Human Values 2	D000701(046)	-	-	2	-	-	10	10	-
			Total Marks	10	4	14	640	100	260	1000	20

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

- Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Electrical Engg.	D024731(024)	Energy Auditing and Management
2.	Electrical Engg.	D024732(024)	Systems Software
3.	Electrical Engg.	D024733(024)	Modeling & Simulation
4.	Electrical Engg.	D024734(024)	Advanced Microprocessor
5.	Electrical Engg.	D024735(024)	Embedded system software in C

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Chhattisgarh Swami Vivekananda Technical University, Newai

Name of the Program: Bachelor of Technology
Semester: B. Tech – 7th **Branch: Electrical Engg.**
Subject: Universal Human values 2 **Course Code: D000701(046)**
Total Marks in End Semester Exam: **L: T: P: 2 Credits: 0**

Course Objective(s):

- Development of a holistic perspective based on self- exploration about themselves (human being), family, society and nature/existence.
- Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
- Strengthening of self-reflection.
- Development of commitment and courage to act.

UNIT-I Introduction- Need, Basic Guidelines, Content and Process for Value Education

- Purpose and motivation for the course, recapitulation from Universal Human Values-I.
- Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration.
- Continuous Happiness and Prosperity- A look at basic Human Aspirations
- Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority.
- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- Method to fulfill the above human aspirations: understanding and living in harmony at various levels.
- Include practice sessions to discuss natural acceptance in human being as the innate acceptance for living with responsibility (living in relationship, harmony and co-existence) rather than as arbitrariness in choice based on liking-disliking.

UNIT-II Understanding Harmony in the Human Being - Harmony in Myself!

- Understanding the needs of Self ('I') and 'Body' - happiness and physical facility.
- Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer).
- Understanding the characteristics and activities of 'I' and harmony in 'I'.
- Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail.
- Programs to ensure Sanyam and Health.
- Include practice sessions to discuss the role others have played in making material goods available to me. Identifying from one's own life.
- Differentiate between prosperity and accumulation. Discuss program for ensuring health vs dealing with disease

UNIT-III Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

- Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship
- Understanding the meaning of Trust; Difference between intention and competence
- Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship
- Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals
- Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.
- Include practice sessions to reflect on relationships in family, hostel and institute as extended family, real life examples, teacher-student relationship, goal of education etc. Gratitude as a universal value in relationships. Discuss with scenarios. Elicit examples from students' lives.

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UNIT-IV Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

- Understanding the harmony in the Nature
- Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature.
- Understanding Existence as Co-existence of mutually interacting units in all-pervasive space.
- Holistic perception of harmony at all levels of existence.
- Include practice sessions to discuss human being as cause of imbalance in nature (film "Home" can be used), pollution, depletion of resources and role of technology etc.

UNIT-V Implications of the above Holistic Understanding of Harmony on Professional Ethics

- Natural acceptance of human values
- Definitiveness of Ethical Human Conduct
- Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- Strategy for transition from the present state to Universal Human Order:
  - At the level of individual: as socially and ecologically responsible engineers, technologists and managers
  - At the level of society: as mutually enriching institutions and organizations
- Include practice Exercises and Case Studies will be taken up in Practice (tutorial) Sessions e.g. to discuss the conduct as an engineer or scientist etc.

Text Books:

1. Human Values and Professional Ethics by R R Gaur, R Sangal, G P Bagaria, Excel Books, New Delhi, 2010
2. Human Values, A.N. Tripathi, New Age Intl. Publishers, New Delhi, 2004.
3. Jeevan Vidya: EkParichaya, A Nagaraj, Jeevan Vidya Prakashan, Amarkantak, 1999.

Reference Books:

1. The Story of Stuff (Book).
2. The Story of My Experiments with Truth - by Mohandas Karamchand Gandhi.
3. Small is Beautiful - E. F Schumacher.

Course Outcome:

After completion of course, student should be able to

- To become more aware of themselves, and their surroundings (family, society, nature); they would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
- They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.

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Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester – Electronics & Telecommunication Engineering)

S.No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Electronics & Telecom	RF & Microwave Engineering	D028711(028)	3	1	-	100	20	30	150	4
2.	Electronics & Telecom	Instrumentation & IoT	D028712(028)	2	1	-	100	20	30	150	3
3.	Electronics & Telecom	Wireless Communication	D028713(028)	2	1	-	100	20	30	150	3
4.	*Professional Elective –III (Refer to Table I)*			1	1	-	100	20	30	150	2
5.	*Open Elective- II (Refer to Table II)*			2	0	-	100	20	30	150	2
6.	Electronics & Telecom	Microwave Lab	D028721(028)	-	-	2	40	-	20	60	1
7.	Electronics & Telecom	Instrumentation & IoT lab	D028722(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom	Project (Phase I)	D028723(028)	-	-	6	60	-	40	100	3
9.	Electronics & Telecom	Industrial Training	D028724(028)			2			20	20	1
10.	Humanities	Universal Human Values 2	D000701(046)	-	-	2	-	-	10	10	-
			Total Marks	10	4	14	640	100	260	1000	20

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

- Note:- The students have to attend the four weeks industrial training / summer internship in B. Tech program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Electronics & Telecom	D028731(028)	Digital Circuit Design with Verilog HDL
2.	Electronics & Telecom	D028732(028)	Adaptive Signal Processing
3.	Electronics & Telecom	D028733(028)	Industrial Automation

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Chhattisgarh Swami Vivekananda Technical University, Newai

Name of the Program: Bachelor of Technology
Semester: B. Tech – 7th **Branch: ET&T**
Subject: Universal Human values 2 **Course Code: D000701(046)**
Total Marks in End Semester Exam: **L: T: P: 2 Credits: 0**

Course Objective(s):

- Development of a holistic perspective based on self- exploration about themselves (human being), family, society and nature/existence.
- Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
- Strengthening of self-reflection.
- Development of commitment and courage to act.

UNIT-I Introduction- Need, Basic Guidelines, Content and Process for Value Education

- Purpose and motivation for the course, recapitulation from Universal Human Values-I.
- Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration.
- Continuous Happiness and Prosperity- A look at basic Human Aspirations
- Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority.
- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- Method to fulfill the above human aspirations: understanding and living in harmony at various levels.
- Include practice sessions to discuss natural acceptance in human being as the innate acceptance for living with responsibility (living in relationship, harmony and co-existence) rather than as arbitrariness in choice based on liking-disliking.

UNIT-II Understanding Harmony in the Human Being - Harmony in Myself!

- Understanding the needs of Self ('I') and 'Body' - happiness and physical facility.
- Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer).
- Understanding the characteristics and activities of 'I' and harmony in 'I'.
- Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail.
- Programs to ensure Sanyam and Health.
- Include practice sessions to discuss the role others have played in making material goods available to me. Identifying from one's own life.
- Differentiate between prosperity and accumulation. Discuss program for ensuring health vs dealing with disease

UNIT-III Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

- Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship

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- Understanding the meaning of Trust; Difference between intention and competence
- Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship
- Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals
- Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.
- Include practice sessions to reflect on relationships in family, hostel and institute as extended family, real life examples, teacher-student relationship, goal of education etc. Gratitude as a universal value in relationships. Discuss with scenarios. Elicit examples from students' lives.

UNIT-IV Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

- Understanding the harmony in the Nature
- Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature.
- Understanding Existence as Co-existence of mutually interacting units in all-pervasive space.
- Holistic perception of harmony at all levels of existence.
- Include practice sessions to discuss human being as cause of imbalance in nature (film "Home" can be used), pollution, depletion of resources and role of technology etc.

UNIT-V Implications of the above Holistic Understanding of Harmony on Professional Ethics

- Natural acceptance of human values
- Definitiveness of Ethical Human Conduct
- Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- Strategy for transition from the present state to Universal Human Order:
  - At the level of individual: as socially and ecologically responsible engineers, technologists and managers
  - At the level of society: as mutually enriching institutions and organizations
- Include practice Exercises and Case Studies will be taken up in Practice (tutorial) Sessions e.g. to discuss the conduct as an engineer or scientist etc.

Text Books:

1. Human Values and Professional Ethics by R R Gaur, R Sangal, G P Bagaria, Excel Books, New Delhi, 2010
2. Human Values, A.N. Tripathi, New Age Intl. Publishers, New Delhi, 2004.
3. Jeevan Vidya: EkParichaya, A Nagaraj, Jeevan Vidya Prakashan, Amarkantak, 1999.

Reference Books:

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1. The Story of Stuff (Book).
2. The Story of My Experiments with Truth - by Mohandas Karamchand Gandhi.
3. Small is Beautiful - E. F Schumacher.

Course Outcome:

After completion of course, student should be able to

- To become more aware of themselves, and their surroundings (family, society, nature); they would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
- They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.

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Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester – Mechanical Engineering)

Sr. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
							Theory/Lab				
				L	T	P	ESE	CT	TA		
1.	Mechanical Engg.	Design of Transmission System	D037711(037)	3	1	-	100	20	30	150	4
2.	Mechanical Engg.	Refrigeration & Air-Conditioning	D037712(037)	2	1	-	100	20	30	150	3
3.	Mechanical Engg.	Automation in Manufacturing	D037713(037)	2	1	-	100	20	30	150	3
4.	*Professional Elective –III (Refer to Table I)*			1	1	-	100	20	30	150	2
5.	*Open Elective- II (Refer to Table II)*			2	0	-	100	20	30	150	2
6.	Mechanical Engg.	Refrigeration & Air-Conditioning Lab	D037721(037)	-	-	2	40	-	20	60	1
7.	Mechanical Engg.	CIM & Automation Lab	D037722(037)	-	-	2	40	-	20	60	1
8.	Mechanical Engg.	Project (Phase I)	D037723(037)	-	-	6	60	-	40	100	3
9.	Mechanical Engg.	Industrial Training	D037724(037)			2			20	20	1
10.	Humanities	Universal Human Values 2	D000701(046)	-	-	2	-	-	10	10	-
			Total Marks	10	4	14	640	100	260	1000	20

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

- Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Mechanical Engg.	D037731(037)	Machine Tool Technology
2.	Mechanical Engg.	D037732(037)	Quality Control and Total Quality Management
3.	Mechanical Engg.	D037733(037)	Thermal System Design
4.	Mechanical Engg.	D037734(037)	Industrial Hydraulics
5.	Mechanical Engg.	D037735(037)	Applied Elasticity and Plasticity

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Chhattisgarh Swami Vivekananda Technical University, Newai

Name of the Program: Bachelor of Technology
Semester: B. Tech – 7th **Branch: Mechanical Engg.**
Subject: Universal Human values 2 **Course Code: D000701(046)**
Total Marks in End Semester Exam: **L: T: P: 2 Credits: 0**

Course Objective(s):

- Development of a holistic perspective based on self- exploration about themselves (human being), family, society and nature/existence.
- Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
- Strengthening of self-reflection.
- Development of commitment and courage to act.

UNIT-I Introduction- Need, Basic Guidelines, Content and Process for Value Education

- Purpose and motivation for the course, recapitulation from Universal Human Values-I.
- Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration.
- Continuous Happiness and Prosperity- A look at basic Human Aspirations
- Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority.
- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- Method to fulfill the above human aspirations: understanding and living in harmony at various levels.
- Include practice sessions to discuss natural acceptance in human being as the innate acceptance for living with responsibility (living in relationship, harmony and co-existence) rather than as arbitrariness in choice based on liking-disliking.

UNIT-II Understanding Harmony in the Human Being - Harmony in Myself!

- Understanding the needs of Self ('I') and 'Body' - happiness and physical facility.
- Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer).
- Understanding the characteristics and activities of 'I' and harmony in 'I'.
- Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail.
- Programs to ensure Sanyam and Health.
- Include practice sessions to discuss the role others have played in making material goods available to me. Identifying from one's own life.
- Differentiate between prosperity and accumulation. Discuss program for ensuring health vs dealing with disease

UNIT-III Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

- Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship
- Understanding the meaning of Trust; Difference between intention and competence
- Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship
- Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals
- Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.
- Include practice sessions to reflect on relationships in family, hostel and institute as extended family, real life examples, teacher-student relationship, goal of education etc. Gratitude as a universal value in relationships. Discuss with scenarios. Elicit examples from students' lives.

UNIT-IV Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

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- Understanding the harmony in the Nature
- Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature.
- Understanding Existence as Co-existence of mutually interacting units in all-pervasive space.
- Holistic perception of harmony at all levels of existence.
- Include practice sessions to discuss human being as cause of imbalance in nature (film "Home" can be used), pollution, depletion of resources and role of technology etc.

UNIT-V Implications of the above Holistic Understanding of Harmony on Professional Ethics

- Natural acceptance of human values
- Definitiveness of Ethical Human Conduct
- Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- Strategy for transition from the present state to Universal Human Order:
  - At the level of individual: as socially and ecologically responsible engineers, technologists and managers
  - At the level of society: as mutually enriching institutions and organizations
- Include practice Exercises and Case Studies will be taken up in Practice (tutorial) Sessions e.g. to discuss the conduct as an engineer or scientist etc.

Text Books:

1. Human Values and Professional Ethics by R R Gaur, R Sangal, G P Bagaria, Excel Books, New Delhi, 2010
2. Human Values, A.N. Tripathi, New Age Intl. Publishers, New Delhi, 2004.
3. Jeevan Vidya: EkParichaya, A Nagaraj, Jeevan Vidya Prakashan, Amarkantak, 1999.

Reference Books:

1. The Story of Stuff (Book).
2. The Story of My Experiments with Truth - by Mohandas Karamchand Gandhi.
3. Small is Beautiful - E. F Schumacher.

Course Outcome:

After completion of course, student should be able to

- To become more aware of themselves, and their surroundings (family, society, nature); they would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
- They would have better critical ability. They would also become sensitive to their commitment towards what they have understood (human values, human relationship and human society). It is hoped that they would be able to apply what they have learnt to their own self in different day-to- day settings in real life, at least a beginning would be made in this direction.

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37	Mechanical Engineering	Mechanical Vibrations & Condition Monitoring	C000637(037)
38	Mechatronics	Entrepreneurship Developments	C000638(067)
39	Plastic Engineering	Heat Transfer Operation	C000639(095)
40	Plastic Engineering	Process Economics and Management	C000640(095)
41	Plastic Engineering	Adhesive and Surface Coating	C000641(095)
42	Information Technology	E-Commerce	C000642(033)
43	Information Technology	Industrial Economics and Management	C000643(033)
44	Information Technology	Project Planning & Management	C000644(033)
45	Information Technology	Bio-Informatics	C000645(033)
46	Information Technology	Management Information System	C000646(033)
47	Chemical Engineering	Plant Utility & Safety Engineering	C000647(019)
48	Chemical Engineering	Environment Pollution & Control	C000648(019)

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Name of Program: **Bachelor of Technology**
Branch: **Common to all Branches**
Subject: Value Engineering
Total Theory Periods: **40**
Class Tests: **Two(Minimum)**
ESE Duration: **Three Hours** **Maximum Marks:100**

Semester: **VI**
Code: **C000608(037)**
Total Tutorial : **Ten(Minimum)**
Assignments: **2(Minimum)**
Minimum Marks:35

Course Objectives:

- The objective of this course is to introduce students with the methodology of Value Engineering and its decision-making process.
- To familiarize students with procedures that provides standards for Value Engineering applications.
- To teach value engineering in a practical, project-based manner.
- During the course student will be engaged in decision-making using Value Engineering tools to ensure quality and value while reducing the cost of projects.
- Student will know about a number of case study applications of the Value Engineering to gain practical experience.

UNIT – I : Basic Concepts

Meaning of the term value, basic kind, and reasons for poor value, value addition, origin and history. Benefits, relevance in Indian scenario.

UNIT – II : Techniques

Different techniques, organizing value engineering study, value engineering and quality.

UNIT – III : Job Plan

Different phases, General phase, Information phase, Functional Phase, Creation Phase, Evaluation Phase, Investigation Phase, Implementation Phase, Audit.

UNIT – IV : Selection of evaluation of VE Projects

Project selection, method selection, value standard, application of methodology.

UNIT – V : Value Engineering Program

VE operations in maintenance and repair activities, VE Cost, life cycle, cost model, training for VE, general value engineering, case studies.

Course Outcomes:

- Understand the basics of Value Engineering (VE) to ensure that a standardized method is used for VE applications to projects
- Learn to perform function analysis for projects
- Understand the appropriate time to apply VE for projects

TEXT BOOKS

1. Value Engineering a How to Manul– S.S. Iyer – New Age International Publishers, New Delhi
2. Industrial Engineering & Management – O.P. Khanna – DhanpatRai& Sons

REFERENCES

1. Techniques of Value Analysis and Engineering – L.D. Miles – McGraw Hill, New York
2. Value Engineering: A Systematic Approach – A.E. Mudge – McGraw Hill, New York
3. Getting More at Less Cost: The Value Engineering Way - Jagannathan G - TMH,New Delhi
4. Value Engineering a Practical Approach for Owners Designers & Constructions – Zimmerman LW & Gilen HD – CBS, New Delhi.
5. Compendium on Value Engineering – H.G. Tufty – Indo-American Society.

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Name of Program: **Bachelor of Technology**
Branch: **Common to all Branches**
Subject: : Managing Innovation & Entrepreneurship
Total Theory Periods: **40**
Class Tests: **Two(Minimum)**
ESE Duration: **Three Hours** **Maximum Marks:100**

Semester: **VI**
Code: **C000609(037)**
Total Tutorial : **Ten(Minimum)**
Assignments: **2(Minimum)**
Minimum Marks:35

Course Objective

1. The course will provide a thorough coverage of conceptual framework on Entrepreneurship development.
2. Enhances student's innovation skill.
3. Helps to provide a quick understanding of essential concepts and issues.
4. Enhance the students to have an understanding about international entrepreneurship.
5. Understand the problems and prospects related to setting up of any type of business.

UNIT – I

Introduction to Entrepreneurship

Evolution of entrepreneurship from economic theory Managerial and entrepreneurial growth and development.

UNIT – II

Creativity and Innovation

Creativity and Innovation: Concepts shifting composition of the Economy purposeful innovation and the seven Sources of innovative opportunity the innovation process. Innovative strategies: Strategies that aim at introducing an innovation. Innovation and entrepreneurship: Can they together? Planning – innovation and entrepreneurship.

UNIT – III

Entrepreneurial Motivation

Need for continuous learning & relearning Acquiring technological Innovation Entrepreneurial motivation (nAch story) Achievement Motivation in Real life Case Study.

UNIT – IV

International Entrepreneurship

Concepts and nature of international entrepreneurship. The changing international environment. Ethics and international entrepreneurship. Strategic issues in international entrepreneurship.

UNIT – V

Problem identification and problem solving

Problem identification. Problem solving. Innovation and diversification.

TEXT BOOK

1. Managing innovation and entrepreneurship in technology based firms-Martin M J-John Willey
2. Managing technology innovation- Ettlite I E - John Willey & Sons.

REFERENCE BOOKS

1. discipline of innovation - Drucker P F -The Harvard business school press , May-June1985.

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Name of Program: **Bachelor of Technology**
Branch: **Common to all Branches**
Subject:: Entrepreneurship Developments
Total Theory Periods: **40**
Class Tests: **Two (Minimum)**
ESE Duration: **Three Hours** **Maximum Marks:100**

Semester: **VI**
Code: **C000638(067)**
Total Tutorial: **Ten (Minimum)**
Assignments: **2(Minimum)**
Minimum Marks:35

Course Objectives:

- To understand Entrepreneurship and Economic Development.
- To understand the forms of entrepreneurship.
- To know about the generation of business ideas and plans.
- To know about Financial organizations and NGO`s

UNIT I Entrepreneurship – Entrepreneurship and its Relationship with the Economic Development, Barriers to Entrepreneurship (Factors affecting Growth of Entrepreneurship), Theory of Achievement Motivation, McClelland's Experiments, Women Entrepreneur's. Entrepreneurship Development in India: Issues and Opportunities, Small-Scale Sector in India.

UNIT II Entrepreneurship Trends - Forms of Ownerships, Franchising, Types of Entrepreneurship, Career Planning, Choice of Entrepreneurship as a Career, Cases from Indian Industry. The ED Cycle, Identifying & Developing Entrepreneurial Potential, Techno-economics innovation and entrepreneurship, Socio-psychological factors influencing entrepreneurship development.

UNIT III Business Idea and Business Plan -, Creativity and Innovation, Business Ideas Generation Process, Evaluation of Business Idea. Building the Business Plan, Venturing an Enterprise, Financial Considerations (Cash Flow Management, Financial Plan, Business Plan). Role of chamber of commerce, industries associations and other bodies like FICCI, CII .

UNIT IV Registration of new venture and Support Systems - Steps and processes involved in setting up a manufacturing unit and a service unit. Process of registration and formalities; Activities of SIDBI, EDI, NIESBUD, DIC, NABARD, Government policy, Agency supporting entrepreneurial development Industrial estates. Role of MSME, NSIC.

UNIT V The Industry and Ancillarization: Role of Intrapreneurship in Indian industry; Success cases, Ancillarization - Ancillarization in India, Ancillaries & Industrial Development, Ancillary Opportunities in different Economic Sectors: Agro Industries, Logistics, BPO, Banking and Finance, Sub-contracting System, Supplier Organization Network Global Aspect of Entrepreneurship. NGOs and entrepreneurship.

TEXT BOOK:

1. Entrepreneurial Development- S.S. Khanka- S. Chand & Co.

REFERENCE BOOKS:

1. Entrepreneurship 6th Edition. Robert D Hisrich , Tata McGraw-Hill.
2 - Entrepreneurship - A Contemporary Approach, Kuratko -Thomson Learning Books
3. Small-Scale Industries and Entrepreneurship. Desai, Vasant (2003). Himalaya Publishing House, Delhi.
4. Business Gurus speaks - Chary – Macmillan
5. Exploring Entrepreneurship - Blundel & Lockett, Oxford University Press
6. Entrepreneurship, Roy, Oxford University Press
7. Entrepreneurship - Barringer & Ireland, Pearson Publication
8. Entrepreneurship Small Business Enterprises, Charantimath, Pearson Publication

Course Outcomes:

- The student will understand Entrepreneurship and Economic Development.
- The student will understand the forms of entrepreneurship.
- The student will know about the generation of business ideas and plans.

The student will know about Financial organizations and NGO`s.

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CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Name of Program: **Bachelor of Technology**
Branch: **Common to all Branches**
Subject: : Environmental Pollution & Control
Total Theory Periods: **40**
Class Tests: **Two(Minimum)**
ESE Duration: **Three Hours** **Maximum Marks:100**

Semester: **VI**
Code: **C000610(037)**
Total Tutorial : **Ten(Minimum)**
Assignments: **2(Minimum)**
Minimum Marks:35

Course Objectives:

- To provide an introduction to Environmental Pollution.
- To develop an understanding of the causes, chemistry and effects of pollution.
- To build awareness of the strategies used to control and manage pollution.
- To make aware of Environmental Laws & Acts

UNIT-I Environmental Pollution – Introduction & Classification

Sources and classification of air pollutants, aerosols, primary and secondary air pollutants, effect of air pollution on human health, effect of SO2, CO2, NO2 H2S and lead, economic effect of air pollution, mechanism of deterioration in polluted atmosphere. Factors influencing atmospheric deterioration,

UNIT – II Environmental Pollution - Sources

Air pollution due to automobiles, exhaust, Crankcase and evaporative emissions and their control, effect of various parameters of I.C. engines on air pollution, photochemical air pollution, air pollution from ferrous metallurgical operations and thermal power plants.

UNIT – III Chemistry of Pollution

Definition of pollutant concentrations, mass concentration, volume concentration, mass-volume concentration and relationship between these concentrations, smoke and its control.Ningalmann smoke chart, smoke prevention and control of air pollution by process change, elementary ideas of control of gaseous contaminants for combustion and absorption.

UNIT – IV Pollution Control

Control of air pollution by equipment, objectives of using control equipment, settling chambers, inertial separators, cyclones, principle of electroscopic precipitators, descriptive study of the above equipment only, merits and demerits of the equipment, choice of equipment.

UNIT – V Environmental Laws & Acts

Air pollution indices, definition of air pollution index, type and use of air pollution indices, criteria for a standardized index, acid rain, causes of acid rain and its remedy, green house and its effect, air pollution legislation and regulations, constitution of the Board, functions of the central board and state boards, classification of pollution sources under Air Act 1981 and 1986.

TEXT BOOKS

1. Environmental Chemistry and Pollution Control - S SDara – S Chand , New Delhi
2. Air Pollution - M.N. Rao and H.V.N. Rao – TMH, New Delhi.

REFERENCE BOOKS

1. Air Pollution Control Theory - Martin Crawford.- TMH, New Delhi
2. Encyclopaedia of Environment Control Technology & Air Pollution Control – Cheremisinott P N – Gulf Publication,
London

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	Bachelor of Technology.		
Branch:	Common to all Branches	Semester:	VII
Subject:	**Knowledge Entrepreneurship**	**Code:**	**D000709(076)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Max Marks:100	Min Marks: 35

UNIT I	Introduction: Entrepreneurship in Knowledge economy, abundant & accessible information, implication, impact & consequence, knowledge based opportunities, aims, scope, and objectives.
UNIT II	Managing knowledge & intellectual capital: Knowledge management, loss of knowledge, knowledge implementation, knowledge creation, property intellectual.
UNIT III	Contemporary information problems: Information overload, winning & losing barrier to entry, emerging issues, customers, investors, myth of inevitable program.
UNIT IV	Creating enterprise cultures: Working with employer, organizing for entrepreneurship, unity & diversity, ten essential freedoms, freedom of operation, effective issue monitoring establish search criteria.
UNIT V	Becoming a knowledge entrepreneur: Entrepreneur qualities, knowledge entrepreneur, challenge of launching new product, creating launch support tool, examples of best practice.

Text books:

1. Amrit Tiwana, The Knowledge Management tool kit, Person Education.
2. Lunlin Conlson, Knowledge Entrepreneur, Thomas Press.
3. Catheriue L Mann, Knowledge entrepreneurship, Oxpford
4. Heinke Robkern, Knowledge entrepreneurship
5. Bonnie Montano, Knowledge Management, IRM Press, Londan

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	Bachelor of Technology.		
Branch:	Common to all Branches	Semester:	VII
Subject:	**Intellectual Property Rights**	**Code:**	**D000710(076)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Max Marks:100	Min Marks: 35

Course Objective:

- To promote the dissemination of the knowledge in intellectual properties by affording protection to its creators and its applications relevant to various streams of Engineering and Technology.

UNIT I	**INTRODUCTION:** Nature of Intellectual Property: Patents, Designs, Trademarks and Copyright. Process of Patenting and Development: technological research, innovation, patenting, development.
UNIT II	**INTERNATIONAL SCENARIO:** International cooperation on Intellectual Property. Procedure for grants of patents, Patenting under PCT.
UNIT III	**PATENT RIGHTS:** Scope of Patent Rights. Licensing and transfer of technology.Patent information and data bases. Geographical Indications.
UNIT IV	**NEW DEVELOPMENTS IN IPR:** Administration of Patent System. New developments in IPR; IPR of Biological Systems, Computer Software etc. Traditional knowledge Case Studies, IPR –patent corporation treaty (PCT)- patent laboratory treaty
UNIT V	**LEGAL PROCEDURE:** Registered and unregistered trademarks, design, concept, idea patenting.

Text books:

1. **Halbert, "Resisting Intellectual Property", Taylor & Francis Ltd, 2007.**
2. **Mayall, "Industrial Design" McGraw Hill, 2004.**

REFERENCES:

1. Niebel, " Product Design" McGraw Hill, 2002
2. Robert P. Merges, Menell, Mark A. Lemley, " Intellectual Property " New Technologi-cal Age , 2002
3. Ramappa T, "Intellectual Property Rights" Under WTO, T., S. Chand, 2003.
4. http://www.ipindia.nic.in/

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	Bachelor of Technology.		
Branch:	Common to all Branches	Semester:	VII
Subject:	**Entrepreneurship essentials**	**Code:**	**D000741(033)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Max Marks:100	Min Marks: 35

COURSE OBJECTIVES:

- To develop conceptual understanding of the topic among the students
- To comprehend the environment of making of an Entrepreneur.

UNIT I	**Entrepreneurship: Definition**, requirements to be an entrepreneur, entrepreneur and entrepreneur, entrepreneur and manager, growth of entrepreneurship in India, women entrepreneurship, rural and urban entrepreneurship.
UNIT II	**Entrepreneurial Motivation: Motivating** factors, motivation Theories-Maslow's Need Hierarchy Theory, McClelland's Acquired Need Theory, government's policy actions towards entrepreneurial motivation, entrepreneurship development programmes.
UNIT III	**Types of Enterprises and Ownership Structure**: Small scale, medium scale and large scale enterprises, role of small enterprises in economic development; proprietorship, partnership, Ltd. companies and co-operatives: their formation, capital structure and source of finance.
UNIT IV	**Projects:** Identification and selection of projects; project report: contents and formulation, concept of project evaluation, methods of project evaluation: internal rate of return method and net present value method.
UNIT V	**Management of Enterprises:** Objectives and functions of management, scientific management, general and strategic management; introduction to human resource management: planning, job analysis, training, recruitment and selection, etc.; marketing and organizational dimension of enterprises; enterprise financing: raising and managing capital, shares, debentures and bonds, cost of capital; break- even analysis, balance sheet its analysis. **Institutional Support and Policies**: institutional support towards the development of entrepreneurship in India, technical consultancy organizations, government policies for small scale enterprises.

Text Books:

1. Ram Chandran, 'Entrepreneurial Development', Tata McGraw Hill, New Delhi
2. Saini, J. S., 'Entrepreneurial Development Programmes and Practices', Deep & Deep Publications (P), Ltd.
3. Khanka, S S. 'Entrepreneurial Development', S Chand & Company Ltd. New Delhi

Reference Books:

1.Badhai, B 'Entrepreneurship for Engineers', Dhanpat Rai & co. (p) Ltd.
2.Desai, Vasant, 'Project Management and Entrepreneurship', Himalayan Publishing House, Mumbai, 2002.
3.Gupta and Srinivasan, 'Entrepreneurial Development', S Chand & Sons, New Delhi.

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	Bachelor of Technology.		
Branch:	Common to all Branches	Semester:	VII
Subject:	**Managerial Skills**	**Code:**	**D000742(033)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Max Marks:100	Min Marks: 35

Course Objective:

- **To help the student to attain the following industry identified competency through various teaching learning experiences:**
- **Use relevant managerial skills for ensuring efficient and effective management.**

UNIT I	**Introduction of management concepts and managerial skills:** definitions of managements, roll and importance of management. Management characteristics and principles levels of management and their functions; management, administration and organization, relation between management and administration. Functions of management: planning, organizing, leading/directing, staffing and controlling, Types of planning, Types of organization, Steps in organizing, Functional areas of management, Managerial skills.
UNIT II	**Planning and organizing at supervisory level: Planning at supervisor level** –Planning by supervisor, Planning activities, detailing and following of each step., Prescribing standard forms for various activities, Budgeting for materials and manpower. **Organizing at Supervisor Level** – Organizing the physical resources, matching human need with job needs, Allotment of tasks to individuals and establishing relationship among person working in a group.
UNIT III	**Directing and Controlling at supervisory level:** Directing at Supervisory level- Needs for directions and instructions to subordinates: Completeness and feasibilities of instructions, Personal counselling advanced predictions of possible mistakes, elaborating decision, laying disciplinary standards in overall working. **Controlling at supervisory level**- Managerial control; Understanding team and link between various departments in respect of process and quality standards: Steps in control process, controlling methods: Control over the performance in respect of quality, quantity of production, time and cost, measuring performance, comparing with standards, correcting unfavorable deviating.
UNIT IV	**Safety Management**: Need for safety management measures, General safety norms for an industrial unit: Preventive measures. Definition of accident, types of industrial accident: Causes of accidents; Fire hazards; Fire drill, Safety procedure, Work permits.
UNIT V	**Legislative Acts:** Necessity of acts, Important definition and Main provisions of acts, Industrial Acts Indian Factory Acts, Industrial Dispute Act, Workman compensation Act, Minimum Wages Act.

Text Books:

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1. Management and entrepreneurship, by Veerabhadrappa, Havinal, New age international publishers, New Delhi, 2014.
2. Principal of Management by Chaudhary omvir Singh prakash, New age international publishers, New Delhi, 2012.

Reference Books:

1. Industrial Engineering and Management by Dr. O. P. Khanna, Dhanpath ray and sons, New Delhi.
2. Industrial Engineering and Management by Banga and Sharma, Khanna Publication, New Delhi.

Course outcomes: The student demonstrates the following Course outcomes associated with above mentioned competency:

1. Use basic management principles to execute daily activities.
2. Use principles of planning and organising for accomplishment of tasks.
3. Use principles of directing and controlling for implementing the plans
4. Apply principles of safety management in all activities.
5. Understand various provisions of industrial acts.

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Open Elective For 8th Semester

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Technology.**		
Branch:	**Common to all Branches**	Semester:	**VIII**
Subject:	**Environmental Science**	Code:	**D000801(094)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Min Marks: 100	Min Marks: 35

Course Objectives:

- Be familiar with the reason of water pollution.
- Familiar with the causes of air pollution
- To learn various method of controlling pollution.

UNIT–I	**Environmental Pollution** Definition, cause, effects and control measures of, Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.
UNIT–II	**Ecosystems** Concept, Structure, function, Producers, consumers, decomposers, Energy flow, ecological succession, food chains, food webs, ecological pyramids. Introduction, types, characteristic features, structure and function of the forest, grassland, desert and aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
UNIT–III	**Biodiversity and its conservation** Introduction, definition, genetic, species & ecosystem diversity and bio-geographical classification of India.
UNIT–IV	**Land resources** Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.
UNIT–V	**Environmental ethics** Issues and possible solutions, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust dies. Wasteland reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and control of Pollution) Act. Wildlife Protection Act. Forest Conservation Act.

Text books:

1. Visit to a local area to document environmental assets river/forest/grassland/hill/mountain.
2. Visit to a local polluted site-Urban/ Rural/ Industrial/ Agricultural, study of common plants, insects, birds and study of simple ecosystems-pond, river, hill slopes, etc.

Reference Books:

1. Expected impact of climate change on agricultural production and water resources.
2. Mitigation Strategies and Economics of climate change.

Course Outcome:

Student should be able to

- To be able to plan and handle issues related to environment.
- To be able to identify the reason of climate change.
- Explain about different types of environmental pollution.
- Explain and apply various methods of controlling environmental pollution

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Chhattisgarh Swami Vivekanand Technical University, Bhilai

Name of Program:	**Bachelor of Technology.**		
Branch:	Common to all Branches	Semester:	**VIII**
Subject:	**Air pollution and control measures**	Code:	**D000814(020)**
Total Theory Periods:	40	Total Tutorial Periods:	Ten (Minimum)
Class Tests:	Two (Minimum)	Assignments:	2 (Minimum)
ESE Duration:	Three Hours	Min Marks: 100	Min Marks: 35

UNIT–I	**Air Pollution:** Problem, Definitions, Classification of pollutants, characteristics and sources. **A.P. Monitoring:** Measurement of stack gases, Sampling methods, Difficulties in sampling, sampling of SPM, stack sampling techniques.
UNIT–II	Air pollution meterology, stability class condition, plume behaviour, topographical effects on air pollution, wind profiles, windroses. Gaussian plume models, assumptions and limitations of GPM, problem on modelling.
UNIT–III	SOX sources, ambient concentrations, test methods, SOX control techniques, effects of SOX on human, animal health, plants and on materials. NOX sources, ambient concentrations, test method control techniques, effects of NOX on human health, animal health, plants and on materials. Particulate size distribution, collection and removal mechanics.
UNIT–IV	Major air pollution disaster episodes, special diseases caused by air pollution, symptoms of chronic air pollution. Mechanisms ofdeterioration in polluted atmospheres, effect of air pollution on art treasures in India.
UNIT–V	Air quality criteria and emission standards, US and Indian standards, air pollution act, constitution, power and functions of the boards. Global effects of air pollution – Green house effect, acid rains, ozone layer depletion, etc.

Text Books:

1. Environmental Engineering – Peavy& Rowe (Tata McGraw Hill, New Delhi).
2. Environmental Science and Engineering – Henry and Heinke (Pearson Education).

Reference Books:

1. Air Pollution – Henry C. Perkins, (McGraw Hill Kogakusha Ltd., Tokyo, Japan, 1974)
2. Air Pollution – Stern, Arthur C. (Academic Press, New York, USA, 1977)
3. Introduction to Environmental Science – Y. Anjaneyulu (B.S. Publications)
4. Waste Water Engineering – Metcalf Eddy (Tata McGraw Hill, New Delhi).

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Sample Reports of NSS Activities

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Report On

TREE PLANTATION IN MBVB SCHOOL CAMPUS

Date : 25-07-2022

Venue : MBVB SCHOOL CAMPUS , BHILAI, C.G.

NSS Unit of CCET Bhilai

TREE PLANTATION IN MBVB SCHOOL CAMPUS

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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By sowing the seeds of environmental consciousness, this tree plantation drive will undoubtedly contribute to a greener, healthier, and more sustainable future. The event set a shining example for schools and communities alike, highlighting the transformative potential of collective efforts in creating a better world for all.

TREE PLANTATION IN MBVB SCHOOL CAMPUS

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TREE PLANTATION IN MBVB SCHOOL CAMPUS

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/05 Dated : 22/07/2022

Sub: TREE PLANTATION IN MBVB SCHOOL CAMPUS

To: All Students & Staff Members

This is to inform all the students & Staff Members that our College is organizing **Tree Plantation Program In MBVB School Campus** on **Monday 25th July 2022.**

Date: Monday 25th July 2022
Timing: 11 AM
MBVB School Campus,Bhilai, C.G.

Mr. Prashant Bawaney and Mr. Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect./Elex.)
* News Letter I/c
* Finance Controller

TREE PLANTATION IN MBVB SCHOOL CAMPUS

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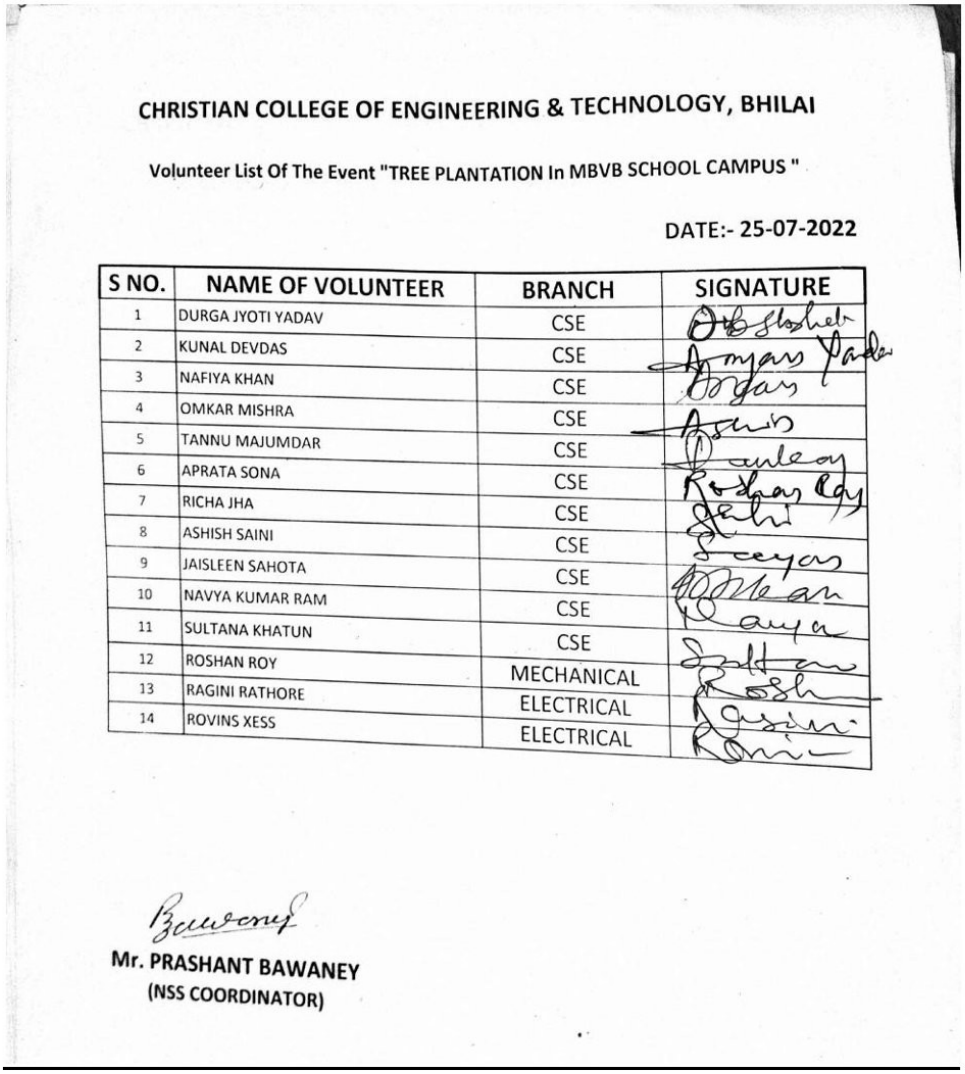

CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "TREE PLANTATION In MBVB SCHOOL CAMPUS "

DATE:- 25-07-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	APRATA SONA	CSE	
7	RICHA JHA	CSE	
8	ASHISH SAINI	CSE	
9	JAISLEEN SAHOTA	CSE	
10	NAVYA KUMAR RAM	CSE	
11	SULTANA KHATUN	CSE	
12	ROSHAN ROY	MECHANICAL	
13	RAGINI RATHORE	ELECTRICAL	
14	ROVINS XESS	ELECTRICAL	

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

TREE PLANTATION IN MBVB SCHOOL CAMPUS

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Report On

POSTER MAKING COMPETITION

Date : 16/08/2022

Venue : CCET Campus Bhilai, C.G.

NSS Unit of CCET Bhilai

POSTER MAKING COMPETITION

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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Report :

Azadi Ka Amrit Mahotsav is an initiative of the Government of India to celebrate and commemorate 75 years of Independence and the glorious history of its people, culture and achievements.

This Mahotsav is dedicated to the people of India who have not only been instrumental in bringing India to such great height in its evolutionary journey, but also hold within them the power and potential to enable Prime Minister Narendra Modi's vision of activating India 2.0, fuelled by the spirit of Aatmanirbhar Bharat.

Christian College of Engineering and Technology, Bhilai in order to celebrate AKAM has organized poster completion on 16th August 2022. The topic of AKAM is a vast topic to discuss and here the participants had to show their imagination through posters. Many students enthusiastically participated in the competition. There were in all 30 student participants

As quoted by our Prime Minister Mr. Narendra Modi "The Azadi Ka Amrit Mahotsav means elixir of energy of independence; elixir of inspirations of the warriors of freedom struggle; elixir of new ideas and pledges; and elixir of Aatmanirbharta. Therefore, this Mahotsav is a festival of awakening of the nation; festival of fulfilling the dream of good governance; and the festival of global peace and development". So Christian College of Engineering and Technology, Bhilai under NSS Club have successfully organized a competition to leave an impact of Aatmanirbhar Bharat on everyone.

POSTER MAKING COMPETITION

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POSTER MAKING COMPETITION

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POSTER MAKING COMPETITION

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/06 Dated: 12/08/2022

Sub: POSTER MAKING COMPETITION

To: All Students & Staff Members

As per the instructions of the AICTE "**POSTER MAKING COMPETITION**" will be organizing on Tuesday 16th August 2022 in our college on the occasion of celebrating the **Azadi ka Amrit Mahotsav.**

Date: Tuesday 16th August 2022
Timing: 11 AM
B-Block, 1st floor Room No B- 203 (Seminar Hall)

All the Students & Staff members (**Faculty, Technical, Admin, Library & Support Staff)** should compulsorily report at **B-Block, 1st floor Room No B- 203 (Seminar Hall) on 16th August 2022 at 11 AM positively.**

Mr. Prashant Bawaney and Mr.Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect./Elex.)
* News Letter I/c
* Finance Controller

POSTER MAKING COMPETITION

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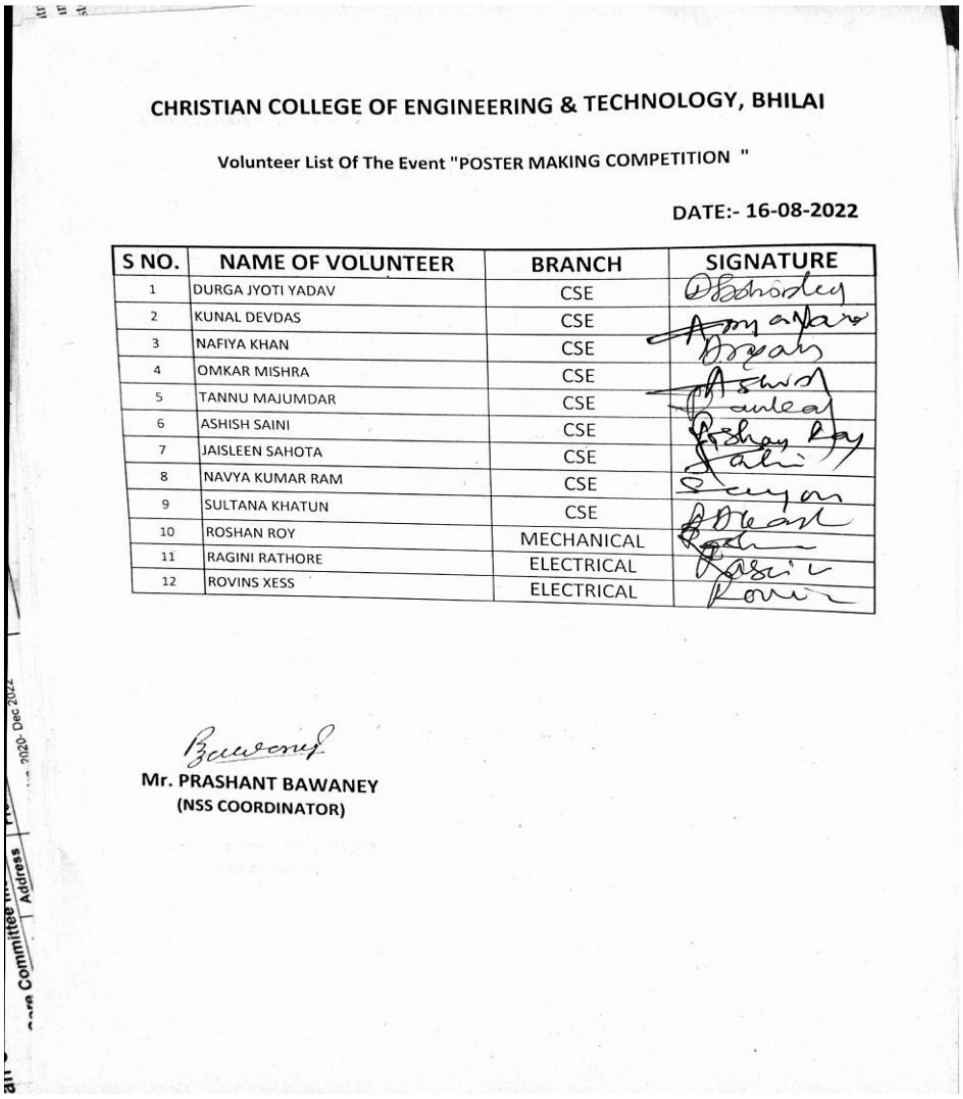

CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "POSTER MAKING COMPETITION "

DATE:- 16-08-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	ASHISH SAINI	CSE	
7	JAISLEEN SAHOTA	CSE	
8	NAVYA KUMAR RAM	CSE	
9	SULTANA KHATUN	CSE	
10	ROSHAN ROY	MECHANICAL	
11	RAGINI RATHORE	ELECTRICAL	
12	ROVINS XESS	ELECTRICAL	

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

Page 6

POSTER MAKING COMPETITION

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Report On

TREE PLANTATION

Date : 17/08/2022

Venue : CCET Campus Bhilai, C.G.

NSS Unit of CCET Bhilai

TREE PLANTATION

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Report :

"Planting a tree is the easiest way to align yourself with the cosmic rhythm". The most common and known purpose of tree plantation is forestry. The forest is very important for maintaining the ecological balance of the environment of the earth. Also, earlier the forest use to cover a major part of the surface of the earth. Apart from that, the forest grows naturally but in order to increase the speed of reforestation, our contribution is a must for it. Also, it will help the forest to recover from the loss due to deforestation. Furthermore, with combine collaboration, the pace of tree plantation can be increased.

Keeping this thought alive, Christian College of Engineering and Technology, Bhilai have organized a "TREE PLANTATION" campaign commemorating the "AAZADI KE AMRIT MAHOTSAV" on 17th August 2022. The program was conducted under the guidance of Administrative Coordinator Rev. Fr. Phillip Kuruvilla and Principal Dr. Dipali Soren. The event started with motivating words by Rev. Fr. Phillip Kuruvilla who quoted about the importance of tree plantation and why we should conserve forests. Principal Dr. Dipali Soren highlighted how positively trees impact the lives of all living beings and why every human being should contribute in planting trees. All the staff members including technical, non-technical, admin and library staff along with the students have contributed their best in the campaign to make it a successful one. The program was organized by NSS Club of CCET and coordinated by Prashant Bawaney and Richa Sahu.

Trees keep the balance in the ecosystem and ecology. To conclude, we can say that trees are very important and beneficial for every life form on earth. Trees contribute to a rich healthy ecosystem. Animals, insects, birds, and fungi make their home in the trees and make a diverse ecosystem. This balanced environment, in turn, contributes to the betterment of human beings.

TREE PLANTATION

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TREE PLANTATION

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TREE PLANTATION

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TREE PLANTATION

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/ 07 Dated : 12/08/2022

Sub: TREE PLANTATION

To: All Students & Staff Members

As per the instructions of AICTE "**TREE PLANTATION**" Program will be organizing on Wednesday 17th August 2022 in our college.

Date: Wednesday 17th August 2022
Timing: 11 AM
CCET CAMPUS BHILAI

All the Students & Staff members (**Faculty, Technical, Admin, Library & Support Staff)** should compulsorily report at **CCET CAMPUS BHILAI on 17th Augst 2022 at 11 AM positively.**

Mr. Prashant Bawaney and Mr.Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect/Elex.)
* News Letter I/c
* Finance Controller

TREE PLANTATION

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "TREE PLANTATION"

DATE:- 17-08-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	APRATA SONA	CSE	
7	RICHA JHA	CSE	
8	ASHISH SAINI	CSE	
9	JAISLEEN SAHOTA	CSE	
10	NAVYA KUMAR RAM	CSE	
11	SULTANA KHATUN	CSE	
12	ROSHAN ROY	MECHANICAL	
13	RAGINI RATHORE	ELECTRICAL	
14	ROVINS XESS	ELECTRICAL	

Bawaney

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

TREE PLANTATION

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Report On

Beti Bachao Beti Padao Abhiyan

Date : 19-08-2022

Venue : PARAS BOD VILLAGE, C.G.

NSS Unit of CCET Bhilai

Beti Bachao Beti Padao Abhiyan

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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Managed By St. Thomas Mission, Bhilai
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REPORT:

The Beti Bachao Beti Padhao Abhiyan event was held on 19th August 2022 at Paras Bod Village in Chhattisgarh. The event was organized by the NSS Unit of CCET Bhilai and aimed to raise awareness about the importance of girl child education, empowerment, and gender equality. The event began with an opening address by Mr. Prashant Bawaney, the NSS Coordinator. He highlighted the significance of the Beti Bachao Beti Padhao Abhiyan and the need to address the challenges faced by girls in accessing education and achieving their full potential. Mr. Bawaney emphasized the importance of creating an inclusive and supportive environment for girls and promoting their rights. Following the opening address, Dr. Dipali Soren, the Principal of CCET Bhilai, delivered a speech. In her address, Dr. Soren emphasized the importance of girl child education and its positive impact on society. She highlighted the need to break gender stereotypes and provide equal opportunities for girls to excel in academics and other fields. Dr. Soren encouraged the community to actively participate in the Beti Bachao Beti Padhao Abhiyan and support the education and empowerment of girls. As part of the event, various activities and sessions were organized to engage the community and spread awareness. Workshops on gender sensitivity, women's rights, and the importance of education were conducted. Participants had the opportunity to learn about the initiatives and schemes implemented under the Beti Bachao Beti Padhao Abhiyan and how they can actively contribute to the cause.

The Beti Bachao Beti Padhao Abhiyan event at Paras Bod Village, with the opening address by Mr. Prashant Bawaney and the speech by Principal Dr. Dipali Soren, successfully created awareness and emphasized the importance of empowering girls through education. The event served as a platform to engage the community and encourage their active participation in promoting gender equality and supporting the education of girls.

In conclusion, the Beti Bachao Beti Padhao Abhiyan event organized by the NSS Unit of CCET Bhilai at Paras Bod Village highlighted the significance of girl child education and empowerment. The event, with the speeches by Mr. Prashant Bawaney and Principal Dr. Dipali Soren, aimed to inspire the community to actively contribute to creating an inclusive society where girls are provided with equal opportunities to thrive and succeed.

Beti Bachao Beti Padao Abhiyan

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY
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If You Aim High, We Provide The Means

Beti Bachao Beti Padao Abhiyan

DIPALI SOREN TUDU

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Beti Bachao Beti Padao Abhiyan

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/08 Dated : 15/08/2022

Sub: Beti Bachao Beti Padao Abhiyan

To: All Students & Staff Members

This is to inform all the students & Staff Members that our College is organizing a **Beti Bachao Beti Padao Abhiyan** on **Friday 19TH August 2022.**

Date: Friday 19TH August 2022
Timing: 11 AM
Paras Bod Village, Dhamdha, C.G.

Mrs. Shikha Agrawal, Assistant Professor, Department of Computer Science Engineering, CCET Bhilai, will be assisting us with the program.

Mr. Prashant Bawaney and Mr. Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect./Elex.)
* News Letter I/c
* Finance Controller

Beti Bachao Beti Padao Abhiyan

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "Beti Bachao Beti Padao Abhiyan"

DATE:- 19-08-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	APRATA SONA	CSE	
7	RICHA JHA	CSE	
8	ASHISH SAINI	CSE	
9	JAISLEEN SAHOTA	CSE	
10	NAVYA KUMAR RAM	CSE	
11	SULTANA KHATUN	CSE	
12	ROSHAN ROY	MECHANICAL	
13	RAGINI RATHORE	ELECTRICAL	
14	ROVINS XESS	ELECTRICAL	

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

Beti Bachao Beti Padao Abhiyan

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Report On

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

Date : 02-10-2022

Venue : Vaishali Nagar, Bhilai, C.G.

NSS Unit of CCET Bhilai

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

DIPALI SOREN TUDU

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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Report :

On the 2nd of October 2022, the Christian College of Engineering and Technology (CCET), Bhilai organized a visit to the Mother Teresa Ashram located in Vaishali Nagar, Bhilai. The visit was conducted under the guidance of the National Service Scheme (NSS) Coordinator, Mr. Prashant Bawaney, with a speech delivered by the Principal, Dr. Dipali Soren. The purpose of the visit was to provide students with an opportunity to engage in community service and witness the compassionate work carried out by the Missionaries of Charity at the Mother Teresa Ashram. The Ashram, operated by the Missionaries of Charity, is a renowned center that provides shelter, food, and medical care to the destitute, elderly, and abandoned individuals. It follows the principles established by Mother Teresa and is committed to serving the underprivileged.

Upon arrival at the Ashram, the CCET students and faculty members were warmly welcomed by the staff and volunteers. The visit included various activities and observations, which aimed to give the students a comprehensive understanding of the Ashram's work. The highlight of the visit was the feeding program organized by the Christian College of Engineering & Technology (CCET) Bhilai. The students actively participated in the distribution of nutritious meals to the needy, experiencing the joy and fulfillment that comes with serving others.

In addition to the feeding program, the students had the opportunity to interact with the residents of the Ashram. They listened to their stories, understanding their struggles and challenges. This interaction created a deeper sense of empathy and compassion among the students, inspiring them to make a positive difference in society. The students also engaged in volunteer work, assisting the Ashram staff with cleaning, organizing, and other tasks. This hands-on experience allowed them to actively contribute to the welfare of the residents and reinforced the importance of teamwork and collaboration.

During the visit, the Principal, Dr. Dipali Soren, delivered a speech that emphasized the significance of service to humanity and the role of education in fostering compassion. She commended the work of the Missionaries of Charity and urged the students to continue engaging

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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in social service initiatives. The speech served as a source of motivation and inspiration for the students, reinforcing the values of empathy, selflessness, and solidarity.

The visit to the Mother Teresa Ashram had a profound impact on the CCET students. It broadened their perspectives, sensitized them to the plight of the underprivileged, and instilled a sense of responsibility towards society. The experience not only deepened their understanding of social issues but also nurtured a spirit of service, encouraging them to actively contribute to the welfare of others.

Furthermore, the visit had a positive impact on the local community. The presence and assistance of the CCET students provided additional support to the Ashram's ongoing efforts. The feeding program, in particular, helped alleviate hunger and malnutrition among vulnerable populations, making a tangible difference in their lives.

In conclusion, the visit to the Mother Teresa Ashram under the Missionaries of Charity was an enriching experience for the students of Christian College of Engineering and Technology, Bhilai. It fostered a deeper understanding of social issues, nurtured a spirit of service, and inspired them to actively contribute to the welfare of others. The visit highlighted the importance of compassion, empathy, and solidarity in creating a positive impact on society.

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

DIPALI SOREN TUDU

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/09 Dated : 30/09/2022

Sub: Visit and feeding in mother teresa Ashram Under missionaries of charity, bhilai

To: All Students & Staff Members

This is to inform all the students & Staff Members that our College is organizing a tour to Visit and feeding the elderly person in Mother Teresa Ashram Under missionaries of charity, bhilai on **Sunday 2nd October 2022.**

Date: Sunday 2nd October 2022
Timing: 11 AM
Vaishali Nagar, Bhilai, C.G.

Those students and staff members are willing to go **Vaishali Nagar, Bhilai, C.G.** give their name and report at CCET CAMPUS BHILAI on **2nd October 2022** at 11 AM positively.

Mr. Prashant Bawaney and Mr.Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect./Elex.)
* News Letter I/c
* Finance Controller

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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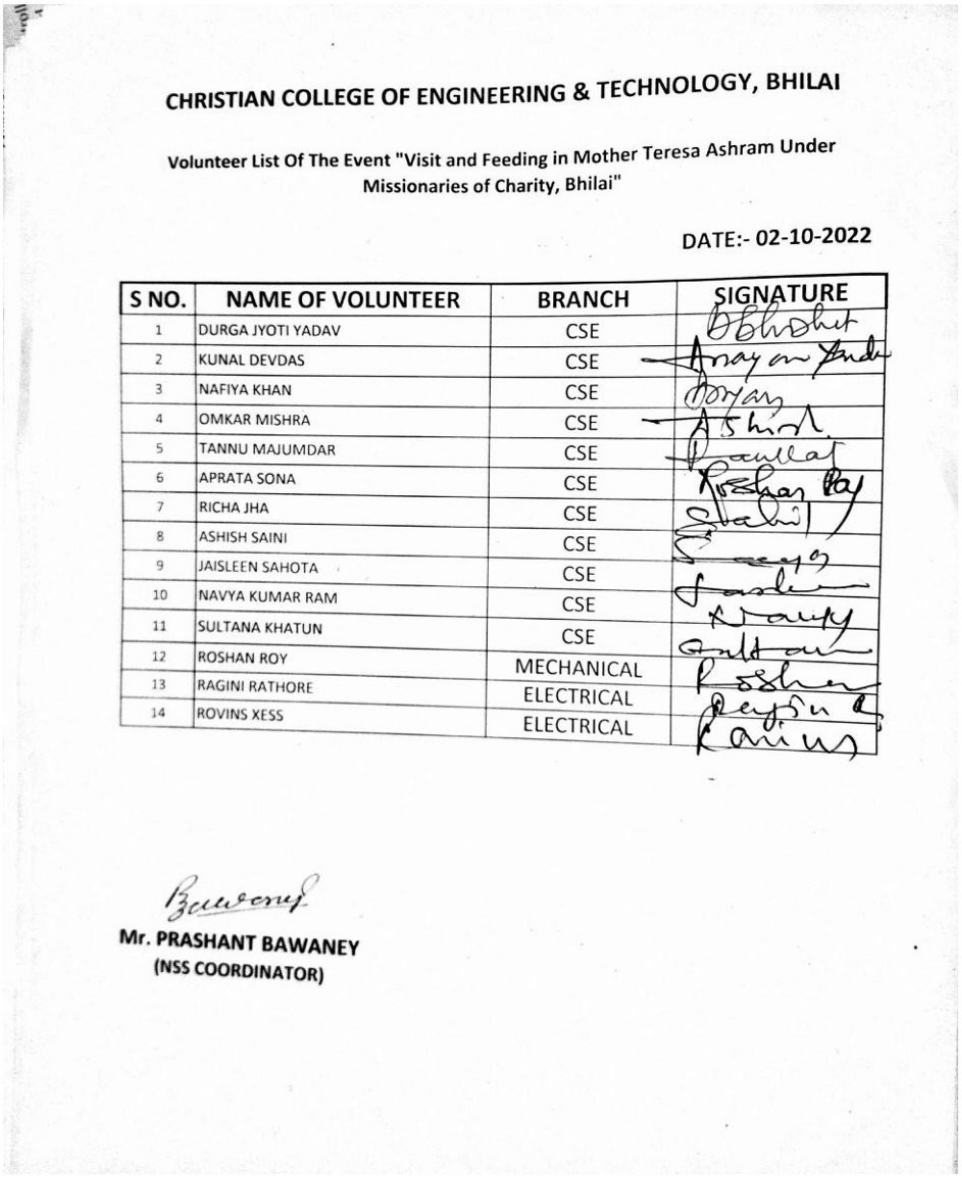

CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "Visit and Feeding in Mother Teresa Ashram Under Missionaries of Charity, Bhilai"

DATE:- 02-10-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	APRATA SONA	CSE	
7	RICHA JHA	CSE	
8	ASHISH SAINI	CSE	
9	JAISLEEN SAHOTA	CSE	
10	NAVYA KUMAR RAM	CSE	
11	SULTANA KHATUN	CSE	
12	ROSHAN ROY	MECHANICAL	
13	RAGINI RATHORE	ELECTRICAL	
14	ROVINS XESS	ELECTRICAL	

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

Visit And Feeding In Mother Teresa Ashram Under Missionaries Of Charity, Bhilai

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Date: 2023.11.03 02:53:46 -07'00'

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Report On

Environmental Sanitation And Disposal Of Garbage & Composting

Date : 18-10-2022

Venue : PARAS BOD VILLAGE, C.G.

NSS Unit of CCET Bhilai

Environmental sanitation and disposal of garbage & composting

DIPALI SOREN TUDU

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REPORT:

An event on Environmental Sanitation and Disposal of Garbage & Composting was organized on 18th October 2022 at Paras Bod Village in Chhattisgarh. The event was led by the NSS Unit of CCET Bhilai and aimed to raise awareness about the importance of maintaining a clean and sustainable environment.

Mrs. Skikha Agrawal and Ms. Richa Sahu, the Assistant Professor CCET Bhilai, delivered a speech highlighting the significance of environmental sanitation and proper waste disposal practices. He emphasized the adverse effects of indiscriminate waste disposal on the environment, public health, and the overall well-being of the community. Mrs. Skikha Agrawal stressed the need for collective action in adopting responsible waste management practices, including recycling, composting, and proper segregation of waste. The event focused on educating the community about effective waste management techniques. Workshops and interactive sessions were conducted to provide practical knowledge on waste segregation, composting, and the benefits of recycling. Participants were informed about the harmful effects of improper waste disposal and were encouraged to adopt eco-friendly habits in their daily lives. The

The event also served as a platform for discussing the challenges faced by the community in waste management. The participants actively shared their concerns and ideas for improvement. The NSS Unit of CCET Bhilai proposed the establishment of waste collection centers, awareness campaigns, and community-driven initiatives to address these challenges. The community members expressed their willingness to actively participate in these initiatives and pledged their support for maintaining a cleaner and healthier environment.

In conclusion, the event on Environmental Sanitation and Disposal of Garbage & Composting, organized by the NSS Unit of CCET Bhilai, successfully raised awareness about responsible waste management practices. The event provided valuable knowledge and practical demonstrations to empower the community in adopting sustainable waste management practices.

Environmental sanitation and disposal of garbage & composting

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The active participation and support from the villagers indicated a positive shift towards a cleaner and greener environment in Paras Bod Village.

Environmental sanitation and disposal of garbage & composting

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Environmental sanitation and disposal of garbage & composting

DIPALI SOREN TUDU

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Criterion 1

Curriculum Enrichment QlM 1.3.1

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/۱۵ Dated : 14/10/2022

Sub: Environmental Sanitation and Disposal of Garbage & Composting.

To: All Students & Staff Members

This is to inform all the students & Staff Members that our College is organizing an **Environmental Sanitation And Disposal Of Garbage & Composting** on **Tuesday 18TH October 2022.**

Date: Tuesday 18TH October 2022
Timing: 11 AM
Paras Bod Village, Dhamdha, C.G.

Mrs. Shikha Agrawal, Assistant Professor, Department of Computer Science Engineering, CCET Bhilai and **Ms. Richa Sahu** Assistant Professor, Department of Electrical Engineering, CCET Bhilai , will be assisting us for the program.

Mr. Prashant Bawaney and Mr. Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman * Bursar
* Principal * HOD (Mech/CSE/Elect./Etex.)
* News Letter I/c
* Finance Controller

Environmental sanitation and disposal of garbage & composting

DIPALI SOREN TUDU

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY
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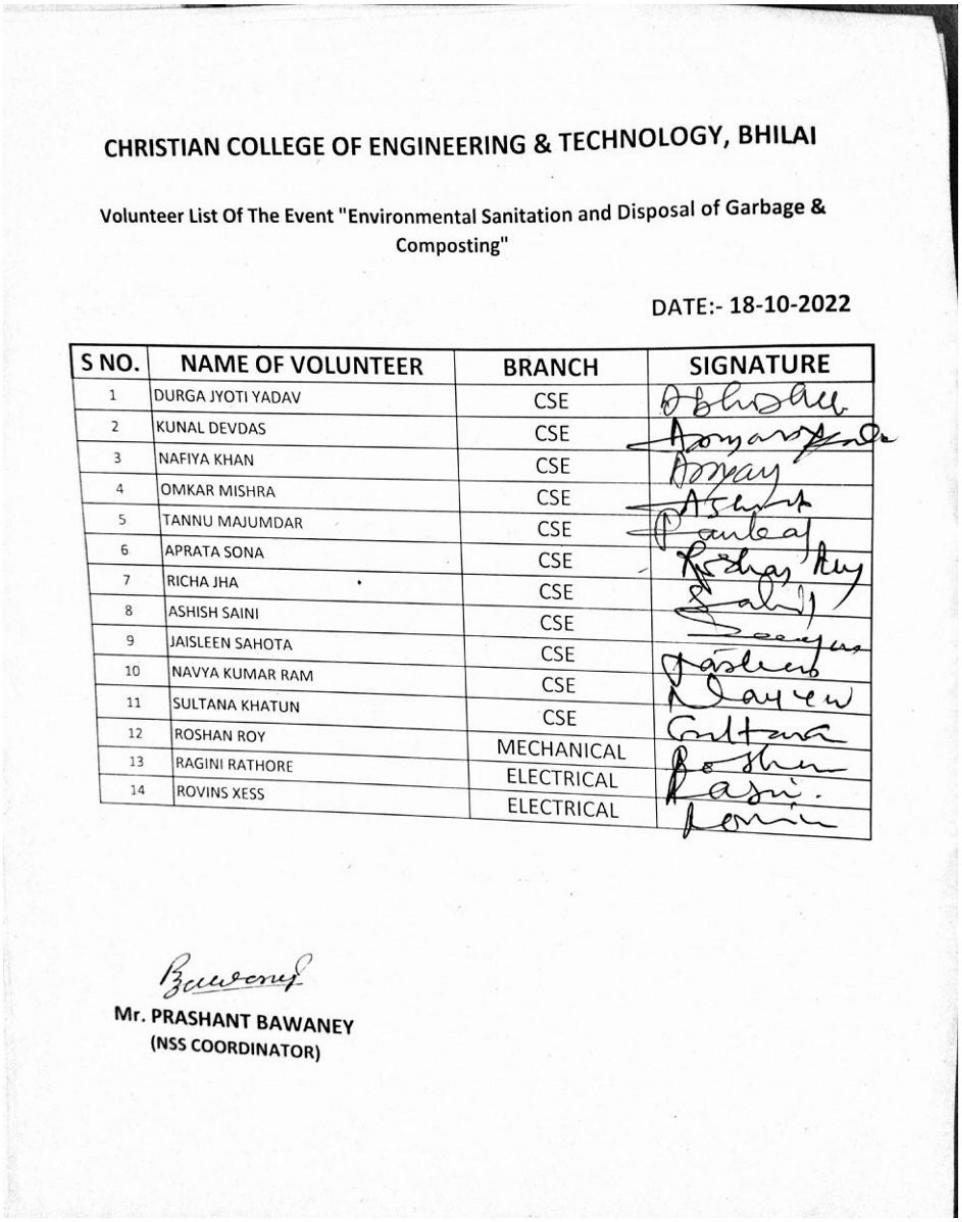

CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, BHILAI

Volunteer List Of The Event "Environmental Sanitation and Disposal of Garbage & Composting"

DATE:- 18-10-2022

S NO.	NAME OF VOLUNTEER	BRANCH	SIGNATURE
1	DURGA JYOTI YADAV	CSE	
2	KUNAL DEVDAS	CSE	
3	NAFIYA KHAN	CSE	
4	OMKAR MISHRA	CSE	
5	TANNU MAJUMDAR	CSE	
6	APRATA SONA	CSE	
7	RICHA JHA	CSE	
8	ASHISH SAINI	CSE	
9	JAISLEEN SAHOTA	CSE	
10	NAVYA KUMAR RAM	CSE	
11	SULTANA KHATUN	CSE	
12	ROSHAN ROY	MECHANICAL	
13	RAGINI RATHORE	ELECTRICAL	
14	ROVINS XESS	ELECTRICAL	

Mr. PRASHANT BAWANEY
(NSS COORDINATOR)

Environmental sanitation and disposal of garbage & composting

DIPALI SOREN TUDU

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Date: 2023.11.03 03:00:44 -07'00'

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Report On

Tb Mukt Bharat Abhiyan

Date : 10/11/2022

Venue : CCET Campus Bhilai, C.G.

NSS Unit of CCET Bhilai

TB MUKT BHARAT ABHIYAN

DIPALI SOREN TUDU

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Report :

Pradhan Mantri TB Mukt Abhiyan is an initiative of Ministery of Health and Family Welfare (MoHFW) to accelerate the country's progress towards TB elimination by 2025.It will provide additional patient support to improve treatment outcomes of TB patient and augment community involvement in meeting India's commitment to end TB by 2025.

Christian College of Engineering and Technology, Bhilai to make the move more impactful and to contribute in the mission of spreading awareness regarding the TB Mukt Abhiyan, in collaboration with the NSS Club coordinated by Mr. Prashant Bawaney, have successfully conducted a workshop on the government initiative of making India free from TB by 2025. The session was headed by Mr. Praveen Chandrakar.

Ni-kshay Mitra Initiative: It is to ensure additional diagnostic, nutritional, and vocational support to those on TB treatment.

Ni-kshay Mitra (Donor) are those who can support by adopting health facilities (for individual donor), blocks/urban wards/districts/states for accelerating response against TB to complement government efforts.

Ni-kshay Digital Portal: It will provide a platform for community support for persons with TB.

The WHO (World Health Organisation) has launched a joint initiative "Find. Treat. All. #EndTB" with the Global Fund and Stop TB Partnership.India's National TB Elimination Programme is strengthened to meet the goal of ending the TB epidemic by 2025 from the country, five years ahead of the Sustainable Development Goals (SDG) for 2030.

TB MUKT BHARAT ABHIYAN

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TB MUKT BHARAT ABHIYAN

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TB MUKT BHARAT ABHIYAN

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TB MUKT BHARAT ABHIYAN

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CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY,
Kailash Nagar, Bhilai

Ref No ;- CCET/NSS/2022/ 11 Dated : 07/11/2022

Sub: TB MUKT BHARAT ABHIYAN

To: All Students & Staff Members

As per the instructions of the Ministry of Health and Family Welfare (M/o H&FW), AICTE and CSVTU "**TB MUKT BHARAT ABHIYAN**" Program will be organizing on **Thursday 10th November 2022** in our college.

Date: Thursday 10th November 2022
Timing: 11 AM
B-Block, 1st floor Room No B- 203 (Seminar Hall)

All the Students & Staff members **(Faculty, Technical, Admin, Library & Support Staff)** should compulsorily report at **B-Block, 1st floor Room No B- 203 (Seminar Hall) on 10th November 2022 at 11 AM positively.**

Mr.Praveen Chandrakar, Assistant Professor, Department of Mechanical Engineering, CCET Bhilai, will be assisting us for the program.

Mr. Prashant Bawaney and Mr.Praveen Chandrakar will be coordinating the program under the NSS.

Mr. Prashant Bawaney
NSS Coordinator

Dr Mrs. Dipali Soren
Principal

Copy to:
* Honorable Chairman/Executive Vice Chairman
* Principal
* Bursar
* HOD (Mech/CSE/Elect./Elex.)
* News Letter I/c
* Finance Controller

TB MUKT BHARAT ABHIYAN

DIPALI SOREN TUDU

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