


Government of Karnataka
Department of Technical Education
Board of Technical Examinations, Bangalore

	Course Title: PROFESSIONAL ETHICS & INDIAN CONSTITUTION		
	Scheme (L:T:P) : 4:0:0	Total Contact Hours: 52	Course Code: 15ME44T
	Type of Course: Lectures, Self Study & Quiz	Credit : 04	Core/ Elective: Core
CIE- 25 Marks		SEE- 100 Marks	

Prerequisites: Enthusiasm to learn the subject

Course Objectives:

1. To create an awareness on Engineering Ethics and Human Values.
2. To instill Moral and Social Values and Loyalty.
3. Create awareness among engineers about their social responsibilities
4. Appreciate the Ethical issues
5. To Know the Human rights and concept of women empowerment
6. To know features of our constitution.

Course Outcomes:

7. *On successful completion of the course, the students will be able to attain CO:*

Course Outcome		CL	Linked PO	Teaching Hrs
CO1	Practice the moral values that ought to guide the Engineering profession.	<i>R/U</i>	5,6,7,8,10	10
CO2	Discover of the set of justified moral principles of obligation, ideals that ought to be endorsed by the engineers and apply them to concrete situations	<i>U/A</i>	5,7,8,10	09
CO3	Know the definitions of risk and safety also discover different factors that affect the perception of risk	<i>R/U</i>	5,6,7,10	05
CO4	Appreciate the Ethical issues and Know the code of ethics adopted in various professional body's and industries	<i>R/U</i>	5,6,7,10	06
CO5	Justify the need for protection of human rights and to know about concept of women empowerment	<i>R/U</i>	5,6,7,8,10	8
CO6	Know the successful functioning of democracy in India	<i>R/U</i>	5,6,7,9,10	14
			Total sessions	52

Legend: R; Remember, U: Understand A: Application

COURSE-PO ATTAINMENT MATRIX

Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
PROFESSIONAL ETHICS & INDIAN CONSTITUTION	-	-	-	-	3	3	3	3	2	3

Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.

Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.

If $\geq 40\%$ of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3

If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2

If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1

If $< 5\%$ of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.

COURSE CONTENT AND BLUE PRINT OF MARKS FOR SEE

Unit No	Unit Name	Hour	Questions to be set for SEE			Marks weightage	weightage (%)
			R	U	A		
1	HUMAN VALUES	10	15	15	-	30	21
2	ENGINEERING ETHICS	09	10	15	-	25	17
3	SAFETY, RESPONSIBILITIES OF ENGINEERS	05	05	-	10	15	11
4	ETHICAL ISSUES IN ENGINEERING PRACTICE	06	05	05	5	15	11
5	HUMAN RIGHTS	8		15	5	20	13
6	INDIAN CONSTITUTION	14		25	15	40	27
	Total	52	35	75	35	145	100

Legend: R; Remember, U: Understand A: Application

UNIT I: HUMAN VALUES**10Hrs**

Professional Ethics-Objectives of study of professional ethics-Human values- Definition of Morals and Ethics-Difference between Morality and Ethics-Values-Definition-Types of values- Definition of Integrity- Concept of Work Ethic- Service Learning- Definition Virtues-Definition-Civic Virtue-Duties and Rights - Respect for Others – Attitude and values, opinions-changing attitude-beliefs-Reliability-Living Peacefully-Means to be adopted for leaving peacefully-Caring-Sharing-Honesty-Valuing Time-Co-operation-Commitment-Empathy-Self-Confidence-Spirituality.

UNIT II: ENGINEERING ETHICS**09Hrs**

Engineering ethics-Definition-Approach-Senses of Engineering Ethics-variety of moral issues– Inquiry-Types-Moral dilemmas-Steps to solve dilemma-Moral autonomy –Definition-consensus & controversy –Profession-Definition–Ethical theories-Theories about right action Personality–Self control- Self-interest –Self respect.

UNIT III: SAFETY, RESPONSIBILITIES OF ENGINEERS**05Hrs**

Safety and risk-definition- - assessment of safety and risk - risk benefit analysis and reducing risk –Personal risk-Public risk-Reducing risk-Voluntary Risk-Collegiality and loyalty– Authority-Types- collective bargaining -occupational crime –Responsibility of engineers– Types-Social responsibility-Professional responsibility-confidentiality-conflicts of interest-liability

UNIT IV: ETHICAL ISSUES IN ENGINEERING PRACTICE**06Hrs**

Ethical issues–Industrial standards-Environmental ethics –Plastic waste disposal-E-Waste Disposal-Semi conductor waste Disposal-Industrial waste disposal-Human centred environmental ethics- computer ethics –Types of issues-Computer as the Instrument and Object of Unethical Acts -Engineers as managers-Codes of ethics-Sample code of Ethics like -Institution of Engineers(India)-Institute of Electrical & Electronics engineers- Institute of Electronics & Telecommunication Engineers - Indian Institute of Materials Management.

UNIT V: HUMAN RIGHTS**8 Hrs**

Human Rights-Definition-constitutional provisions-right to life and liberty-Human Rights of Women-Discrimination against women- steps that are to be taken to eliminate discrimination against women in Education, employment, health care, Economic and social life, Women in rural areas- Status of Women in India - Constitutional Safeguards - Dowry Prohibition act 1961- Domestic violence act 2005- Sexual harassment at work place bill 2006-Human Rights of Children- Who is a child- list the Rights of the Child- Right to education--Protection of Children from Sexual Offences Act(POCSO)-2012- National Human Rights Commission-Constitution- Powers and function of the Commission-Employee rights- Provisions made-Contractual-Non contractual employee rights-Whistle blowing-definition-Aspects-Intellectual Property Rights (IPR)–Meaning-Need for protection- Briefly description of concept of patents, Copy right, Trade mark.

Introduction to constitution of India-Formation and Composition of the Constituent Assembly-Salient features of the Constitution-Preamble to the Indian Constitution Fundamental Rights- Fundamental Duties-Directive principles of state policy.

Parliamentary system of governance- Structure of Parliament- Lokhasabha and Rajyasabha - Functions of parliament- Legislative ,Executive, Financial Function, Powers of Loksabha and Rajya Sabha- Procedure followed in parliament in making law-Structure of union executive- Power and position of President, Vice President, Prime minister and council of ministers. Structure of the judiciary: Jurisdiction and functions of Supreme Court, high court, and subordinate courts

Federalism in the Indian constitution, Division of Powers- Union list, State list and concurrent list, Structure of state legislation, Legislative assembly and Legislative council, Functions of state legislature, Structure of state executive-Powers and positions of Governor, ,Speaker, Deputy Speaker, Chief Minister and council of minister.

Local self government- meaning-Threetiersystem-Villagepanchayath-Talukpanchayath-Zillapanchayath-Local bodies-Municipalities and Corporations, Bruhath mahanagara Palike. Functions of Election commission, UPSC, KPSC.



TEXT BOOKS

1. Naagarazan, R.S. , “Professional Ethics and Human Values “ New age International <http://www.imd.inder.cu/adjuntos/article/524/Professional%20Ethics%20and%20Human%20Values.pdf>
- 2.Charles D. Fleddermann, "Engineering Ethics", Pearson Education / Prentice Hall,
- 3.NCERT_Indian_Constitution_at_Work_Political_Science_Class_11_www.upscportal.com (1)



REFERENCES

- 1.Govindarajan M, Natarajan S, Senthil Kumar V. S, “Engineering Ethics”, Prentice Hall of India, New Delhi, 2004.
2. Charles E Harris, Michael S. Protchard and Michael J Rabins, "Engineering Ethics - Concepts and Cases", Wadsworth Thompson Learning, United States, 2000
3. John R Boatright, "Ethics and the Conduct of Business", Pearson Education, New Delhi, 2003.
4. Edmund G Seebauer and Robert L Barry, "Fundamentals of Ethics for Scientists and Engineers", Oxford University Press, Oxford, 2001
- 5.Mike Martin and Roland Schinzinger, "Ethics in Engineering", McGraw-Hill, New York, 1996.
6. Introduction to the Constitution of India- Dr.Durga Das Basu
7. Empowerment of rural women in India-Hemalatha H.M and RameshwariVarma,HemaPrakashana.

LIST OF LEARNING WEBSITES:

1. <http://www.imd.inder.cu/adjuntos/article/524/Professional%20Ethics%20and%20Human%20Values.pdf>
2. <http://www.course.sdu.edu.cn/G2S/eWebEditor/uploadfile/20131017113401956.pdf>

SUGGESTED LIST OF STUDENT CASE STUDY

Note: The following or similar Case study related for assessing CIE (IA) for 10 marks

1	Teacher form the group of 5- 6 students, Ask to think by each student, about an important value acquired from their child hood and the value still retained with them and value they rejected. Ask to share the values retained and explore what has made to reject some values. Make report
2	The construction company wants to make a feasibility study of a proposed ring road near your city. It hires Civil engineer for this purpose. The engineer learns that the project would have a very negative impact in term of pollution, economy, and lives of low income rural population. The Engineer had no intention of divulge the information during public hearings. What should the Engineer as Adviser to do? Make report
3	The computer engineer develops a computer program used as a tool in developing other programs assigned to him. He uses the facilities of the company to develop the program. He changes jobs and takes the only copy of the first program with him for use in his new job. Will it be a violation of the employer's right? Does he require previous employer's permission before using it on the new job? Make report
4	A manufacturing enterprise pays their Technicians Trainees overtime salary and a handsome bonus to work during a strike period. The strike was organized by the union against the unsafe working conditions of the plant. You, considered as a Technician trainee, believe that the conditions may be unsafe even though no government regulations apply. What will you do? Make report Options: <ol style="list-style-type: none">1. Refuse to work, because thinking that the allegations of the union have merit2. Refuse to work because believing that breaking the strike is unethical.3. Continue to work, because he feels this is an obligation to the employees4. Continue to work because it will help clear some of his pending commitments5. Work, because otherwise Management is likely to be fired and cannot get alternate job.
5	A woman who was driving a car was involved in an accident. The vehicle dashed against the divider. She had fallen unconscious. You are passing by your vehicle. She is known to you, alive and stable. You are going to appear for an interview for Air Force recruitment. Is it (or) is it not your duty to save her from suffering? You are likely to fulfill a duty of protecting the country. What you will do .Apply Ethical theory on this situation. Make report
6	Teacher form the group of 5- 6 students, Ask to Visit local general hospital/leading Nursing homes. Ask them to observe how their hospital wastes being disposed. Will they follow the safe disposable measures? Assess how it will violate their environmental ethics. Make report

MORE SUGGESTED CASE STUDY FOR UNDERSTANDING THE COURSE

Case Studies: Study the cases given in text book *Vide page number 120 to page number 138: Naagarazan, R.S "Professional Ethics and Human Values "* New age International (E-link :<http://www.imd.inder.cu/adjuntos/article/524/Professional%20Ethics%20and%20Human%20V alues.pdf>) and analyzes the ethical issues and comment on what one should do. State ethical principles, codes of ethics of professional societies, to support your comments.

Course Delivery:

- The course will be delivered through lectures and Power point presentations/ Video
- Teachers can encourage the students to take case study and make the report of the same.

Course Assessment and Evaluation Scheme:

	What		To whom	When/Where (Frequency in the course)	Max Marks	Evidence collected	Course outcomes
	CIE	IA					
Direct Assessment			Students	Three tests (Average of three tests to be computed)	20	Blue books	1,2,3,4,5,6
				One Case study	05	Report	1,2,3,4,5,6
				Total	25		
	SEE	End Exam		End of the course	100	Answer scripts at BTE	1,2,3,4,5,6
Indirect Assessment	Student Feedback on course		Students	Middle of the course		Feedback forms	1 & 2,3 Delivery of course
	End of Course Survey			End of the course		Questionnaires	1,2,3,4,5,6 Effectiveness of Delivery of instructions & Assessment Methods

Note: I.A. test shall be conducted for 20 marks. After taking average of three tests marks, any decimals shall be rounded off to the next higher digit.

Example only: RUBRICS/CRITERIA FOR ASSESSING STUDENT'S CASE STUDY (5 Students in a group).

Dimension	Scale					Students Score				
	Unsatisfactory 1	Developing 2	Satisfactory 3	Good 4	Exemplary 5	1	2	3	4	5
1. Research and gather data information	Does not collect information relate to topic	Collects very limited information, some relate to topic	Collects basic information, most refer to the topic	Collects more information, most refer to the topic	Collects a great deals of information, all refer to the topic	3				
2. Full fills teams roles and data interpretation	Does not able to interpret data perform any duties assigned to the team role	slightly able to interpret data and Performs very little duties	Not precisely able to interpret data and Performs nearly all duties	Precisely Able to interpret Data and Performs almost all duties	Excellent in interpreting data and Performs all duties of assigned team roles	4				
3. Shares work equally	Always relies on others to do the work	Rarely does the assigned work, often needs reminding	Usually does the assigned work, rarely needs reminding	Always does the assigned work, rarely needs reminding.	Always does the assigned work, without needing reminding	5				
4. Listen to other team mates and able to conclude	Is always talking, never allows anyone to else to speak not able to infer	Usually does most of the talking, rarely allows and the others to speak and slightly able to infer	Listens, but sometimes talk too much and able to infer	Listens and talks a little more than needed and able to precisely conclude	Listens and talks a fare amount and excellently conclude this opinion	2				
Grand Average/Total						14/4=3.5 ~ 4				

Questions for CIE and SEE will be designed to evaluate the various educational components (Bloom's taxonomy) such as:

Sl. No	Bloom's Category	% in Weightage
1	Remembering	35
2	Understanding	50
3	Application	10
4	Analysis (activities)	05

FORMAT OF I A TEST QUESTION PAPER (CIE)

Test/Date and Time	Semester/year	Course/Course Code	Max Marks			
Ex: I test/6 th weak of sem 10-11 Am	I/II SEM	PROFESSIONAL ETHICS & INDIAN CONSTITUTION	20			
	Year:	15ME44T				
Name of Course coordinator :			Units: __			
CO's: ____						
Question no	Question		MARKS	CL	CO	PO
1						
2						
3						
4						

Note: Internal choice may be given in each CO at the same cognitive level (CL).

MODEL QUESTION PAPER (CIE)

Test/Date and Time	Semester/year	Course/Course Code	Max Marks			
Ex: I test/6 th weak of sem 10-11 Am	IV SEM	PROFESSIONAL ETHICS & INDIAN CONSTITUTION	20			
	Year: 2015-16	Course code: 15ME44T				
Name of Course coordinator :			Units:1,2 and CO: 1,2			
Note: Answer all questions and carry equal marks						
Question no	Question		CL	CO	PO	
1	List the factors for one to work peacefully.		R	1	5,6,7	
2	Illustrate the ethical aspect principle of caring or sharing, with an example? OR Explain various actions of an engineer leading to dishonesty?		A	1	5,6,7	
3	State the specific virtues relating to honesty? OR List the situations when moral dilemmas arise?		R	2	5,7,8	
4	Explain the relation between autonomy and authority?		A	2	5,7,8	

MODEL QUESTION PAPER

4- Semester Diploma Examination

PROFESSIONAL ETHICS & INDIAN CONSTITUTION

Time: **3 Hours**]

[Max Marks: **100**

Note: Answer any SIX from Part A and any SEVEN from Part B

PART-A

6x5=30 marks

1. Distinguish between 'morality' and 'ethics'
2. Explain the terms, 'Profession', 'Professional', and 'Professionalism'?
3. Name a few techniques (steps) to reduce risks?
4. List the ill effects of E waste disposal on environment?
5. Explain the role of computers as object of Unethical Acts?
6. State various provisions under 'human rights'?
7. Differentiate between 'Patent' and 'Trade secret'?
8. State the function of Governor?
9. Write Note on gram panchayaths?

PART-B

7x10=70 marks

10. Illustrate the ethical aspect principle of caring or sharing, with an example?
11. Explain various actions of an engineer leading to dishonesty?
12. List the situations when moral dilemmas arise?
13. Distinguish between 'corporate responsibility' and 'corporate accountability'?
14. Explain Occupational crime?
15. Explain code of Ethics followed in Institution of Engineers?
16. Explain Sexual harassment at work place bill 2006?
17. Explain the basic structure of Parliament?
18. Explain the formation and functions of state high Court?
19. State the role of following members in Rajyasabha?:
 - a) Chairman
 - b) Leader of the house
 - c) Opposition leader



MODEL QUESTION BANK

4th Semester

Course title: PROFESSIONAL ETHICS & INDIAN CONSTITUTION

CO1: PRACTICE THE MORAL VALUES THAT OUGHT TO GUIDE THE ENGINEERING PROFESSION.

Level-1: Remember

1. Define Engineering Ethics?
2. State the two approaches to Engineering ethics?
3. List different meanings of 'ethics'.
4. List the key trends in engineering ethics?
5. Distinguish between 'morality' and 'ethics'?
6. List different types of values and give a few examples in each?
7. List the civic virtues one should develop?
8. List the types of virtues, with an example for each
9. List the factors for one to work peacefully?
10. List different ways the honesty reflects?
11. List the benefits of empathy?
12. Define 'character'. and 'spirituality'?

Level-2: Understand

13. How do the human values evolve?
14. Explain the term 'respect for others' with suitable example?
15. Explain what should one do or not to do live peacefully?
16. Distinguish between 'caring' and 'sharing'?
17. What are the impediments to proper co-operation?
18. Explain the factors that shape self-confidence in a person?
19. Explain two methods of developing self-confidence?
20. Illustrate the ethical aspect principle of caring or sharing, with an example?
21. Explain various actions of an engineer leading to dishonesty?
22. Explain Service Learning and discuss on its components?
23. Explain any two Human values in detail?

CO2: DISCOVER OF THE SET OF JUSTIFIED MORAL PRINCIPLES OF OBLIGATION, IDEALS THAT OUGHT TO BE ENDORSED BY THE ENGINEERS AND APPLY THEM TO CONCRETE SITUATIONS

Level-1: Remember

1. List the objectives of this course 'professional ethics'?
2. Define the term, 'moral dilemma'?
3. List the situations when moral dilemmas arise?
4. List the steps in confronting moral dilemma?
5. State the five characteristics of professionals?
6. State the specific virtues relating to honesty?
7. Define 'corporate responsibility'
8. Define 'corporate accountability'?
9. List the skills required to handle moral problems/issues in engineering ethics?

Level-2: Understand

10. Why do people behave unethically?
11. Why and how do moral problems arise in a profession?
12. Explain the moral dilemma
13. Explain the difficulties in solving moral problems?

14. Explain the relation between autonomy and authority?
15. Highlight the principle of 'pre-conventional level' of moral development?
16. Explain the terms, 'Profession', 'Professional', and 'Professionalism'?
17. Describe the virtues fulfilled under professional responsibility?
18. Distinguish between 'corporate responsibility' and 'corporate accountability'?
19. What is moral integrity? Write on its significance?
20. Differentiate between self-respect and self-esteem.?
21. Distinguish between causal responsibility, moral responsibility and Legal responsibility?
22. What is meant by Professional Responsibility?
23. Where and how do moral problems arise in engineering practice? Justify the safety and other obligations of professional engineers?

CO3: KNOW THE DEFINITIONS OF RISK AND SAFETY ALSO DISCOVER DIFFERENT FACTORS THAT AFFECT THE PERCEPTION OF RISK

Level-1: Remember

1. Name the factors that influence the perception of risk?
2. List the factors that affect the risk acceptability?
3. Name a few techniques (steps) to reduce risks?
4. List various aspects of collegiality?
5. List factors/principles to justify 'confidentiality'?
6. State the difference between 'bribe' and 'gift'?

Level-2: Understand

7. What is meant by 'safe exit', in the study of safety?
8. Describe 'institutional authority' with an example?

Level-3: Application

9. Explain 'collective bargaining with example'?
10. Explain briefly 'institutional authority'?
11. Explain Occupational crime?

CO4: APPRECIATE THE ETHICAL ISSUES AND KNOW THE CODE OF ETHICS ADOPTED IN VARIOUS PROFESSIONAL BODY'S AND INDUSTRIES

Level-1: Remember

1. List the ill effects of E waste disposal on environment?
2. Define 'computer ethics'? List the issues in 'computer ethics'?
3. Name different types of problems in 'computer ethics'?
4. List the ethical problems by computers in workplace?
5. List the ethical features involved in computer crime?

Level-2: Understand

6. Describe briefly on code of ethics?
7. Write note on Industrial standards?
8. What are the duties of an engineer as an experimenter, in environmental ethics?
9. How the plastic waste disposals create havocs?
10. Discuss on Industrial waste disposal creating disasters on environment?

Level-3: Application

11. Explain 'environmental ethics'?

12. Explain human centred environmental ethics?
13. Explain the role of computers as instruments?
14. Explain the role of computers as object of Unethical Acts?
15. Explain the role of engineers as managers?
16. Explain code of Ethics followed in Institution of Engineers?
17. Explain code of Ethics followed in engineering council of India?
18. Explain code of Ethics followed in TATA group?
19. Explain code of Indian Institute of Materials Management?

CO 5: JUSTIFY THE NEED FOR PROTECTION OF HUMAN RIGHTS AND TO KNOW ABOUT CONCEPT OF WOMEN EMPOWERMENT

Level-1: Remember

1. State various provisions under 'human rights'?
2. List the features of 'international human rights'?
3. State the provisions under professional rights?
4. State the features of the employee rights?
5. List the principles of *conflict resolution*?
6. List the ethical responsibilities of consulting engineers?
7. List the various Special Programs for Women's Development from government?

Level-2: Understand

8. Describe briefly 'trademark'?
9. Differentiate between 'Patent' and 'Trade secret'?
10. Describe briefly 'right of conscientious refusal'?
11. Describe 'right to due processes'?
12. Describe 'intellectual property rights'?

Level-3: Application

13. Explain briefly the 'copyright'?
14. Explain briefly about patents?
15. Explain on the participation in professional societies?
16. Explain the concept of women empowerment?
17. Explain woman and Development?
18. Explain Dowry Prohibition act 1961?
19. Explain POCSO act 2012?
20. Explain domestic violence act 2005?
21. Explain Sexual harassment at work place bill 2006?

CO6: KNOW THE SUCCESSFUL FUNCTIONING OF DEMOCRACY IN INDIA

Level-1: Remember

1. List the function and powers of parliament?
2. State the positions and powers of the Governor?
3. State the powers and Functions of the Chief Minister?
4. State the functions of Taluk panchayaths?
5. State the functions of Zilla panchayaths?
6. List the functions of urban local bodies?
7. State the powers of the president?
8. State the functions of the president?

9. State the powers and Functions of the prime minister?

Level-2: Understand

10. Describe briefly about Indian constitution?
11. Write about structure of Parliament?
12. What are the Procedure followed in parliament in making law?
13. Describe the role of gram panchayaths in community upliftment?
14. Describe the role of: a) Chairman b) Leader of the house c) Opposition leader in Rajyasabha?
15. Describe importance of Judiciary?
16. Describe the Structure of state legislation
17. Describe the Jurisdiction of Supreme court,
18. Describe the Jurisdiction high court?

Level-3: Application

19. Explain the Formation & Composition of constituent assembly?
20. Explain preamble and its main objectives of Indian constitution?
21. Explain the fundamental Rights of Every citizen?
22. Explain the fundamental Duties of Every citizen?
23. Explain salient features of Indian constitution?
24. Explain the basic structure of Parliament?
25. Explain the composition of Lokasabha?
26. Explain the composition of Rajyasabha?
27. Explain the Directive principles of state policy?
28. Explain the Structure Of The Judiciary?
29. Explain the Powers of Rajya Sabha and Loksabha ?
30. Describe briefly about, Division of Powers- Union list, State list and concurrent list,
31. Explain the federalism in the Indian constitution ?
32. Explain the role of vice president?
33. Explain the role of State council of ministers?
34. Explain the functions of Zilla panchayaths?
35. Explain the formation and functions of Supreme Court?
36. Explain the formation and functions of state high Court?
37. Explain the formation and functions of subordinate courts?
38. Explain the formation of three tier system for local self government?

