



**SNS COLLEGE OF TECHNOLOGY,  
COIMBATORE –35  
(An Autonomous Institution)  
UNIT I  
ENGINEERING ETHICS**



**1. Define Ethics?**

- Study of right or wrong.
- Good and evil.
- Obligations & rights.
- Justice.
- Social & Political deals.

**2. Define Engineering Ethics?**

- Study of the moral issues and decisions confronting individuals and organizations engaged in engineering / profession.
- Study of related questions about the moral ideals, character, policies and relationships of people and corporations involved in technological activity.
- Moral standards / values and system of morals.

**3. What is the need to study Ethics?**

- To responsibly confront moral issues raised by technological activity.
- To recognize and resolve moral dilemma.
- To achieve moral autonomy.

**4. Differentiate Moral and Ethics?**

**MORAL:**

- Refers only to personal behavior.
- Refers to any aspect of human action.
- Social conventions about right or wrong conduct.

**ETHICS:**

- Involves defining, analyzing, evaluating and resolving moral problems and developing moral criteria to guide human behavior.
- Critical reflection on what one does and why one does it.
- Refers only to professional behavior.

**5. What is the method used to solve an Ethical problem?**

- Recognizing a problem or its need.
- Gathering information and defining the problem to be solved or goal to be achieved.
- Generating alternative solutions or methods to achieve the goal.
- Evaluate benefits and costs of alternate solutions.
- Decision making & optimization.
- Implementing the best solution.

**6. What are the Senses of Engineering Ethics?**

- An activity and area of inquiry.
- Ethical problems, issues and controversies.
- Particular set of beliefs, attitudes and habits.
- Morally correct.



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## 7. Differentiate Micro-ethics and Macro-ethics?

**Micro-ethics** : Deals about some typical and everyday problems which play an important role in the field of engineering and in the profession of an engineer.

**Macro-ethics** : Deals with all the societal problems which are unknown and suddenly burst out on a regional or national level.

## 8. What are the three types of Inquiry?

- Normative Inquiry – Based on values.
- Conceptual Inquiry – Based on meaning.
- Factual Inquiry – Based in facts.

## 9. What are the sorts of complexity and murkiness that may be involved in moral situations?

- Vagueness
- Conflicting reasons
- Disagreement

## 10. What are the steps in confronting Moral Dilemmas?

- Identify the relevant moral factors and reasons.
- Gather all available facts that are pertinent to the moral factors involved.
- Rank the moral considerations in order of importance as they apply to the situation.
- Consider alternative courses of actions as ways of resolving dilemma, tracing the full implications of each.
- Get suggestions and alternative perspectives on the dilemma.
- By weighing all the relevant moral factors and reasons in light of the facts, produce a reasoned judgment.

## 11. Define Moral Autonomy?

- Self-determining
- Independent
- Personal Involvement
- Exercised based on the moral concern for other people and recognition of good moral reasons

## 12. Give the importance of Lawrence Kohlberg's and Carol Gilligan's theory?

Kohlberg gives greater emphasis to recognizing rights and abstract universal rules.

Gilligan stresses the importance of maintaining personal relationships based on mutual caring.

## 13. Give the need for Authority?

Authority provides the framework in which learning can take place.

## 14. What are the criteria required for a Profession?

- Knowledge
- Organization
- Public Good



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### 15. Give the general criteria to become a Professional engineer?

- Attaining standards of achievement in education, job performance or creativity in engineering that distinguish engineers from engineering technicians and technologists.
- Accepting as part of their professional obligations as least the most basic moral responsibilities to the public as well as to their employers, clients, colleagues and subordinates.

### 16. Define Integrity?

Integrity is the bridge between responsibility in private and professional life.

### 17. Define Compromise?

- In a negative sense it means to undetermined integrity by violating one's fundamental moral principles.
- In a positive sense, however, it means to settle differences by mutual concessions or to reconcile conflicts through adjustments in attitude and conduct.

### 18. Give the two aspects of Honesty?

- Truthfulness – meeting responsibilities concerning truth-telling.
- Trustworthiness – Meeting responsibilities concerning trust.

### 19. Differentiate Self-respect and Self-esteem?

**Self-respect:** It is a moral concept; refers to the virtue properly valuing oneself.

**Self-esteem:** It is a psychological concept; means having a positive attitude toward oneself, even if the attitude is excessive or otherwise unwarranted.

### 20. What are the two forms of Self-respect?

- Recognition self-respect
- Appraisal self-respect

### 21. What are the senses of Responsibility?

- A virtue
- Obligations
- General moral capacities of people
- Liabilities and accountability for actions
- Blameworthiness or praiseworthiness

### 22. When will you tell an Act as an involuntary one?

- Act done in ignorance
- Act performed under compulsion

### 23. What are the types of Theories about Morality?

- Virtue ethics – Virtues and vices
- Utilitarianism – Most good for the most people
- Duty ethics – Duties to respect people
- Rights ethics – Human rights



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### **24. Differentiate Hypothetical imperatives and Moral imperatives?**

Hypothetical imperatives are based on some conditions whereas Moral imperatives are based on some condition.

### **25. State Rawl's principles?**

- Each person is entitled to the most extensive amount of liberty compatible with an equal amount for others.
- Differences in social power and economic benefits are justified only when they are likely to benefit everyone, including members of the most disadvantaged groups.

### **26. Give the various tests required to evaluate the Ethical Theories?**

- Theory must be clear, and formulated with concepts that are coherent and applicable.
- It must be internally consistent in that none of its tenets contradicts any other.
- Neither the theory nor its defense can rely upon false information.
- It must be sufficiently comprehensive to provide guidance in specific situations of interests to us.
- It must be compatible with our most carefully considered moral convictions about concrete situations.

### **27. Give the drawbacks of Utilitarianism?**

- Sometimes what is best for the community as a whole is bad for certain individuals in the community.
- It is often impossible to know in advance which decision will lead to the most good.

### **28. Give the drawback of Duty Ethics?**

Duty ethics does not always lead to a solution which maximizes the public good.

### **29. Give the drawbacks of Rights Ethics?**

- How do we prioritize the rights of different individuals?
- It often promotes the rights of individuals at the expense of large groups / society.

### **30. Differentiate Ethical Relativism and Ethical Egoism?**

**Ethical egoism** – the view that right action consists in producing one's own good.

**Ethical relativism** – the view that right action is merely what the law and customs of one's society require.

### **31. Define Ethical Pluralism?**

Ethical pluralism is the view that there may be alternative moral perspectives that are reasonable, but no one of which must be accepted completely by all rational and morally concerned persons.

### **32. Define Religion?**

A religion is any set of articles of faith together with the observances, attitudes, obligations and feelings tied up therewith, which, in so far as it is influential in a person, tends to perform two functions, one social and the other personal.



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### 33. Give the uses of Ethical Theories?

- In understanding moral dilemmas
- Justifying professional obligations and ideals
- Relating ordinary and professional morality

### 34. What are personal ethics and business ethics?

**Personal ethics** deals with how we treat others in our day-to-day lives.

**Business ethics** deals with the desired norms of behavior that pertain to commercial transactions.

### 35. What do you mean by normative ethics?

Normative ethics deals with the professional codes of ethics that specify roles or norms or obligations that professions attempt to enforce. It is the recommendations of standards and guidelines for morally right or good behavior.

### 36. What is descriptive ethics or non-normative ethics?

Descriptive ethics deals with the factual investigation of moral behavior and beliefs. i.e., the study not of what people ought to do but how they reason and how they act.

### 37. Mention some universally accepted ethical principles.

- Honesty
- Integrity
- Fulfilling commitments
- Abiding by agreements in both letter and spirit
- Willing to admit mistakes
- Being caring and compassionate
- Having respect for human dignity

### 38. What do you mean by ethical subjectivism?

Ethical subjectivism argues that what is ethically right or wrong for the individual depends on the ethical principles he/she has chosen. In other words, for people who subscribe to ethical subjectivism what is ethically right or wrong is entirely a personal matter.

### 39. What are the steps in confronting moral dilemmas?

- Identify the relevant moral factors and reasons
- Gather all available facts that are pertinent to the moral factors involved.
- Rank the moral considerations in order of importance as they apply to the situation.
- Consider alternative course of action as ways of resolving the dilemma, tracing the full implications of each.
- Talk with the colleagues seeking their suggestions and alternative perspectives on the dilemma.
- Arrive at a carefully reasoned judgment by weighing all the relevant factors and reasons in light of the facts.

### 40. What is tacit-ethic and Meta-ethics?

- Tacit ethic deals with the unsaid or unspoken rule of practice.
- Meta-ethics deals with theories about ethics.



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**41. What is moral autonomy?**

Moral autonomy can be viewed as the skill and habit of thinking rationally about ethical issues on the basis of moral concern.

**42. What do you mean by a sociopath?**

Sociopaths lack a sense of moral concern and guilt, and can never be morally autonomous no matter how independent their intellectual reasoning about ethics may be.

**43. What are the attributes to a profession?**

The attributes to a profession are:

i. Knowledge ii. Organization. iii. Public good

**44. What are the two models of a professional society?**

The two models of a professional society are:

- Social contract model
- Business model