QUESTIONB BANK

19GE701 - PROFESSIONAL ETHICS AND HUMAN VALUES

UNIT – I

ENGINEERING ETHICS

Senses of 'Engineering Ethics'

1. **What are the key senses of 'Engineering Ethics'? Answer:**
   Engineering ethics refers to the study of moral values, principles, and standards in engineering practices. It encompasses the ethical responsibilities of engineers to society, their employers, and the environment.
2. **How does engineering ethics differ from personal ethics? Answer:**
   While personal ethics are individual moral principles, engineering ethics specifically addresses the ethical standards and responsibilities related to the engineering profession, focusing on public safety, honesty, and integrity in professional conduct.

Variety of Moral Issues

3. **What are some common moral issues faced by engineers? Answer:**
   Common moral issues include safety vs. cost trade-offs, environmental impact, honesty in reporting data, confidentiality, and conflicts of interest.
4. **Why is it important to address moral issues in engineering? Answer:**
   Addressing moral issues is crucial because engineering decisions often have significant impacts on public safety, environmental sustainability, and societal well-being.

Types of Inquiry

5. **What are the three main types of inquiry in engineering ethics? Answer:**
   The three main types are:
   - **Normative inquiry:** What ought to be done ethically.
   - **Conceptual inquiry:** Clarifying the meaning of concepts or principles.

- o **Factual inquiry:** Investigating facts to understand the ethical implications of a situation.
6. **How does normative inquiry contribute to engineering ethics? Answer:**
Normative inquiry helps determine what actions are ethically right or wrong in a given engineering context, guiding engineers in making moral decisions.

Moral Dilemmas

7. **What is a moral dilemma in engineering ethics? Answer:**
A moral dilemma occurs when an engineer faces two or more conflicting ethical obligations, making it difficult to decide the right course of action without compromising some ethical principles.
8. **Give an example of a moral dilemma an engineer might face. Answer:**
An engineer might have to choose between meeting a tight project deadline (and risking safety) or delaying the project to ensure thorough testing and safety compliance.

Moral Autonomy

9. **What is moral autonomy in the context of engineering? Answer:**
Moral autonomy refers to the ability of engineers to make independent ethical decisions based on their own moral judgment, rather than relying solely on external rules or authority.
10. **Why is moral autonomy important for engineers? Answer:**
It is important because engineers often face unique and complex situations that require personal ethical judgment, ensuring that decisions align with both professional standards and personal integrity.

Kohlberg's Theory

11. **What are the stages of moral development according to Kohlberg's theory? Answer:**
Kohlberg's theory outlines six stages of moral development, grouped into three levels:
    - o **Pre-conventional:** Obedience and self-interest.
    - o **Conventional:** Conformity and law-and-order.
    - o **Post-conventional:** Social contract and universal ethical principles.
12. **How does Kohlberg's theory apply to engineering ethics? Answer:**
Engineers may progress through different levels of moral reasoning, from following rules (conventional level) to making decisions based on universal ethical principles (post-conventional level).

Gilligan's Theory

13. **What is the main focus of Gilligan's theory of moral development? Answer:**
Gilligan's theory emphasizes the importance of relationships and care in moral decision-making, contrasting with Kohlberg's justice-oriented approach.
14. **How does Gilligan's theory differ from Kohlberg's in the context of engineering ethics? Answer:**

While Kohlberg focuses on justice and rules, Gilligan highlights the role of care, empathy, and interpersonal relationships in ethical decision-making, which can influence how engineers approach ethical dilemmas.

Consensus and Controversy

15. **What role does consensus play in engineering ethics? Answer:**
Consensus helps establish widely accepted ethical standards and practices within the engineering profession, ensuring consistency and reliability in ethical decision-making.
16. **Why is there controversy in some areas of engineering ethics? Answer:**
Controversy arises when there is disagreement over ethical principles or when different stakeholders have conflicting interests, making it difficult to reach a universally accepted ethical solution.

Uses of Ethical Theories

17. **How are ethical theories used in engineering ethics? Answer:**
Ethical theories provide frameworks for analyzing and resolving ethical dilemmas, helping engineers to justify their decisions based on principles such as utilitarianism, deontology, or virtue ethics.
18. **What is the significance of utilitarianism in engineering ethics? Answer:**
Utilitarianism emphasizes the greatest good for the greatest number, guiding engineers to consider the overall impact of their decisions on society and choose actions that maximize positive outcomes.
19. **Explain the role of deontological ethics in engineering. Answer:**
Deontological ethics focuses on duties and rules, guiding engineers to adhere to ethical principles, such as honesty and fairness, regardless of the consequences.
20. **What is virtue ethics and how does it apply to engineering? Answer:**
Virtue ethics emphasizes the importance of moral character and virtues, such as honesty, courage, and integrity. In engineering, it encourages professionals to develop and act according to these virtues in their work.

UNIT – II

ENGINEERING AS SOCIAL EXPERIMENTATION

Engineering as Experimentation

1. **What does the concept of "Engineering as Experimentation" imply? Answer:**
   It implies that engineering projects involve uncertainty and risk, similar to scientific experiments. Engineers must approach their work with a mindset of continuous learning, testing, and adapting based on outcomes.
2. **How is the role of an engineer similar to that of a scientist conducting experiments? Answer:**
   Engineers, like scientists, must hypothesize, design, and test their solutions, considering potential failures and outcomes. They must learn from these results to improve and refine their designs or processes.
3. **Why is it important to view engineering projects as experiments? Answer:**
   Viewing engineering projects as experiments helps engineers remain cautious about uncertainties, manage risks effectively, and continuously seek improvements in their designs or processes.
4. **How does "Engineering as Experimentation" affect decision-making? Answer:**
   It encourages engineers to base decisions on evidence, test outcomes, and iterative improvements, rather than on assumptions or untested ideas, leading to more reliable and ethical outcomes.
5. **What are the risks associated with treating engineering as experimentation? Answer:**
   Risks include potential failures, unforeseen consequences, and ethical dilemmas that may arise when experimenting with real-world applications, impacting public safety and welfare.

Engineers as Responsible Experimenters

6. **What does it mean for engineers to be "responsible experimenters"? Answer:**
   Being responsible experimenters means that engineers must ensure the safety, well-being, and informed consent of those affected by their work, while also being accountable for the outcomes of their projects.
7. **Why is safety a key concern for engineers as responsible experimenters? Answer:**
   Safety is crucial because engineering projects often directly impact public health, the environment, and society. Responsible engineers must prioritize minimizing risks and ensuring safe outcomes.
8. **What role does accountability play for engineers as responsible experimenters? Answer:**
   Accountability ensures that engineers take responsibility for the consequences of their actions, both positive and negative, and strive to correct any mistakes or harms that occur during their work.

9. **How can engineers balance innovation with responsibility? Answer:**
   Engineers can balance innovation with responsibility by carefully assessing risks, adhering to ethical standards, and ensuring that their experiments are conducted with transparency and respect for those affected.
10. **What ethical considerations must engineers keep in mind when acting as responsible experimenters? Answer:**
    Engineers must consider the potential impact on public safety, environmental sustainability, and the ethical implications of their work, including the informed consent of those involved.

Codes of Ethics

11. **What is the purpose of a Code of Ethics in engineering? Answer:**
    The purpose is to provide a framework for professional conduct, guiding engineers in making ethical decisions, maintaining integrity, and protecting public safety in their work.
12. **How does a Code of Ethics benefit engineers? Answer:**
    It helps engineers navigate moral dilemmas, build trust with the public and colleagues, and maintain high standards of professionalism, ensuring their work aligns with ethical principles.
13. **What is the role of honesty in engineering Codes of Ethics? Answer:**
    Honesty is fundamental, as it ensures transparency, trustworthiness, and integrity in engineering practices, allowing for accurate reporting of results and ethical decision-making.
14. **Why is public safety emphasized in engineering Codes of Ethics? Answer:**
    Public safety is emphasized because engineering projects often have direct consequences on human lives and the environment, making it essential for engineers to prioritize the well-being of society.
15. **How do Codes of Ethics guide engineers in professional responsibility? Answer:**
    They outline the responsibilities engineers have to their clients, the public, and the environment, helping them to make decisions that are ethical, legal, and socially responsible.

A Balanced Outlook on Law

16. **What does a balanced outlook on law mean for engineers? Answer:**
    It means that engineers must adhere to legal requirements while also considering ethical principles, ensuring their actions are both lawful and morally sound.
17. **Why is it important for engineers to maintain a balanced outlook on law? Answer:**
    Maintaining a balanced outlook ensures that engineers comply with regulations without compromising ethical standards, leading to responsible and legally sound engineering practices.
18. **How can engineers balance legal obligations with ethical considerations? Answer:**
    Engineers can balance these by following laws that protect public welfare while also making ethical decisions that go beyond legal minimums, ensuring their work is just and responsible.

19. **What are the consequences of neglecting either law or ethics in engineering?**
Answer:
Neglecting the law can lead to legal penalties and loss of licensure, while neglecting ethics can harm public trust, safety, and the engineer's professional reputation.
20. **Give an example of how an engineer might face a conflict between legal and ethical responsibilities. Answer:**
An engineer might encounter a situation where a legal regulation allows for minimal safety standards, but ethically, they feel compelled to exceed these standards to ensure greater public safety.

UNIT – III

RESPONSIBILITIES AND RIGHTS

1. What is Collegiality in the Workplace?

Answer:
Collegiality in the workplace refers to the spirit of cooperation, mutual respect, and shared responsibility among colleagues. It emphasizes working together harmoniously to achieve common goals while maintaining professional relationships.

2. Explain the Importance of Loyalty to an Employer.

Answer:
Loyalty to an employer is important as it builds trust and strengthens the relationship between the employee and employer. However, it should be balanced with ethical responsibilities and personal integrity, ensuring that loyalty does not lead to unethical behavior.

3. What Does Respect for Authority Mean in a Professional Setting?

Answer:
Respect for authority means recognizing and adhering to the legitimate directives and decisions of superiors. It involves following instructions in a professional manner while also considering ethical implications and the well-being of the organization.

4. Define Collective Bargaining.

Answer:
Collective bargaining is a process where employees, through their unions or representatives, negotiate with employers to establish terms of employment, such as wages, working conditions, and benefits. It aims to protect workers' rights and achieve fair labor practices.

5. What is Confidentiality in the Workplace?

Answer:
Confidentiality in the workplace involves protecting sensitive information from unauthorized access or disclosure. It is a key ethical responsibility that ensures trust between the employer and employees, and safeguards proprietary or personal data.

6. What Constitutes a Conflict of Interest?

Answer:
A conflict of interest occurs when an individual's personal interests interfere with their professional responsibilities, potentially leading to biased decisions that could harm the organization or compromise ethical standards.

7. Explain Occupational Crime.

Answer:
Occupational crime refers to illegal activities committed by employees during the course of their employment. Examples include embezzlement, fraud, and insider trading. These crimes violate both legal and ethical standards and can have serious consequences for organizations.

8. What are Professional Rights?

Answer:
Professional rights refer to the entitlements and protections that individuals have in their professional roles, including fair treatment, freedom from discrimination, the right to work in a safe environment, and respect for their professional judgment.

9. What are Employee Rights?

Answer:
Employee rights encompass the protections and benefits that workers are entitled to in the workplace, such as fair wages, safe working conditions, freedom from discrimination and harassment, and the right to unionize and collectively bargain.

10. What are Intellectual Property Rights (IPR)?

Answer:
Intellectual Property Rights (IPR) are legal protections granted to creators for their original works, such as inventions, literary and artistic works, designs, and symbols. IPR includes patents, copyrights, trademarks, and trade secrets, and ensures that creators can control and benefit from their creations.

11. How Does Discrimination Affect the Workplace?

Answer:
Discrimination in the workplace negatively impacts the work environment by creating inequality, reducing morale, and potentially leading to legal consequences. It involves unfair treatment based on characteristics like race, gender, age, or religion, and undermines the principles of fairness and equality.

12. What is the Role of Codes of Ethics in Engineering?

Answer:
Codes of Ethics in engineering provide guidelines for professional conduct and ethical decision-making. They help engineers navigate moral dilemmas, ensure public safety, and maintain the integrity of the profession by promoting standards of honesty, fairness, and accountability.

13. What is Moral Autonomy?

Answer:
Moral autonomy is the ability to make ethical decisions independently, based on personal judgment and ethical principles, rather than relying solely on external rules or directives. It is essential for professionals who must navigate complex moral situations.

14. Why is Plagiarism Considered Unethical?

Answer:
Plagiarism is considered unethical because it involves using someone else's work or ideas without proper attribution, thereby misrepresenting the origin of the content. It violates principles of honesty and integrity, undermining the trust in academic and professional environments.

15. What is the Significance of Consensus in Engineering Ethics?

Answer:
Consensus in engineering ethics is significant because it represents a general agreement on ethical principles and practices among professionals. It helps ensure that decisions are made in a way that is widely accepted as fair, responsible, and in the public interest.

16. Describe the Concept of Engineering as Experimentation.

Answer:
Engineering as experimentation suggests that engineering projects often involve uncertainty and should be approached with a mindset of continuous learning, similar to scientific experimentation. Engineers must carefully consider risks, test outcomes, and adapt as needed.

17. What is the Impact of Occupational Crime on Organizations?

Answer:
Occupational crime can have a severe impact on organizations, leading to financial losses,

damage to reputation, legal penalties, and a loss of trust among stakeholders. It also undermines the ethical culture of the workplace.

18. How Can Conflicts of Interest Be Managed?

Answer:
Conflicts of interest can be managed by disclosing any potential conflicts, avoiding situations where personal interests could influence professional decisions, and following established guidelines to ensure transparency and fairness.

19. What is the Purpose of Collective Bargaining Agreements?

Answer:
Collective bargaining agreements serve to protect employees' rights by formalizing the terms of employment, including wages, benefits, and working conditions, through negotiations between employers and employee representatives. These agreements help ensure fair treatment and labor practices.

20. Why is Confidentiality Important in Professional Settings?

Answer:
Confidentiality is important in professional settings because it protects sensitive information, builds trust between parties, and prevents unauthorized disclosure that could harm individuals or the organization. Maintaining confidentiality is a key ethical obligation for professionals.

Need, Basic Guidelines, Content, and Process for Value Education

1. **Why is value education necessary? Answer:**
   Value education is necessary to develop moral integrity, ethical behavior, and a sense of responsibility among individuals, enabling them to contribute positively to society.
2. **What are the basic guidelines for value education? Answer:**
   The basic guidelines include understanding universal human values, integrating these values into everyday life, and fostering harmony at all levels—from individual to societal.
3. **What should be the content of value education? Answer:**
   The content should focus on universal values such as honesty, compassion, respect, responsibility, and harmony, which are applicable across cultures and societies.
4. **Describe the process of value education. Answer:**
   The process involves self-reflection, dialogue, and experiential learning, where individuals critically assess their values, align them with ethical principles, and practice them in daily life.
5. **How does value education contribute to individual development? Answer:**
   It helps individuals cultivate a well-rounded personality, develop ethical reasoning, and build a strong moral foundation, essential for personal growth and societal well-being.

Understanding Harmony in the Human Being

6. **What is meant by 'harmony in the human being'? Answer:**
Harmony in the human being refers to the balance and alignment between the body, mind, and spirit, leading to inner peace, clarity, and well-being.
7. **Why is harmony within oneself important? Answer:**
Harmony within oneself is crucial for mental and emotional stability, enabling individuals to lead a fulfilling life and maintain positive relationships with others.
8. **How can one achieve harmony within oneself? Answer:**
Harmony can be achieved through self-awareness, meditation, balanced living, and aligning one's thoughts, actions, and values with ethical principles.
9. **What role does self-reflection play in achieving personal harmony? Answer:**
Self-reflection helps individuals recognize their strengths and weaknesses, understand their true nature, and make conscious efforts to align their actions with their values, leading to personal harmony.
10. **How does understanding one's needs contribute to inner harmony? Answer:**
Understanding and prioritizing one's needs—both physical and psychological—helps in maintaining balance and reducing conflicts within, contributing to inner peace and harmony.

Harmony in Myself

11. **What is the significance of understanding harmony in oneself? Answer:**
Understanding harmony in oneself is significant as it fosters self-contentment, clarity of thought, and the ability to navigate life's challenges with resilience and positivity.
12. **How does practicing mindfulness contribute to harmony in oneself? Answer:**
Practicing mindfulness helps in staying present, reducing stress, and gaining deeper insights into one's thoughts and emotions, leading to a more harmonious state of being.
13. **What is the connection between ethical living and harmony in oneself? Answer:**
Ethical living, by aligning one's actions with universal values, eliminates inner conflicts and guilt, fostering a sense of peace and harmony within oneself.
14. **Explain the impact of positive thinking on self-harmony. Answer:**
Positive thinking nurtures optimism, reduces stress, and enhances emotional well-being, contributing to a harmonious and balanced internal state.
15. **How does physical health influence harmony in oneself? Answer:**
Physical health is foundational to overall well-being; maintaining good health through proper diet, exercise, and rest supports mental clarity and emotional stability, contributing to self-harmony.

Understanding Harmony in the Family and Society

16. **What is harmony in the family? Answer:**
Harmony in the family involves mutual respect, understanding, and support among family members, leading to a cohesive and peaceful home environment.
17. **How can harmony be cultivated within a family? Answer:**
Harmony can be cultivated by promoting open communication, empathy, shared responsibilities, and a strong sense of togetherness among family members.

18. **What is the importance of harmony in society? Answer:**
    Harmony in society ensures peaceful coexistence, social stability, and collective progress, where individuals and communities work together for common good.
19. **How does understanding different perspectives contribute to social harmony? Answer:**
    Understanding different perspectives fosters tolerance, reduces conflicts, and promotes cooperation, which are essential for achieving harmony in a diverse society.
20. **How does education play a role in fostering social harmony? Answer:**
    Education fosters social harmony by promoting critical thinking, ethical reasoning, and the appreciation of cultural diversity, enabling individuals to contribute positively to society.

UNIT – IV

UNIVERSAL HUMAN VALUES – INTRODUCTION

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18. **What is the importance of harmony in society? Answer:**
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19. **How does understanding different perspectives contribute to social harmony? Answer:**
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20. **How does education play a role in fostering social harmony? Answer:**
Education fosters social harmony by promoting critical thinking, ethical reasoning, and the appreciation of cultural diversity, enabling individuals to contribute positively to society.

UNIT – V

UNIVERSAL HUMAN VALUES – HARMONY

1. **What is meant by 'harmony in nature'? Answer:**
Harmony in nature refers to the balanced and interconnected relationships among all living and non-living entities, ensuring the sustainability and well-being of the ecosystem.
2. **How does nature demonstrate the principle of co-existence? Answer:**
Nature demonstrates co-existence through the interdependence of various species and elements, where each entity plays a role in maintaining ecological balance, supporting life collectively.
3. **What is the significance of understanding harmony in nature for human beings? Answer:**
Understanding harmony in nature is crucial for humans to live sustainably, minimize environmental impact, and ensure the well-being of future generations by respecting the natural world.
4. **How does the concept of co-existence relate to human behavior? Answer:**
Co-existence encourages humans to live in harmony with others and nature, fostering mutual respect, collaboration, and the responsible use of resources to maintain balance and peace.

Whole Existence as Co-existence

5. **What is meant by the concept of 'whole existence as co-existence'? Answer:**
The concept implies that all entities in existence are interconnected and interdependent, functioning together as a unified whole, where the well-being of each part contributes to the well-being of the entire system.
6. **Why is it important to view existence as co-existence? Answer:**
Viewing existence as co-existence helps in recognizing the interdependence of all life forms, promoting a sense of responsibility and stewardship towards the environment and society.
7. **How does the understanding of co-existence impact human actions? Answer:**
Understanding co-existence encourages individuals to act in ways that support the collective well-being, fostering sustainable practices, ethical behavior, and harmony within the community and environment.

8. **How does the concept of whole existence as co-existence influence environmental ethics? Answer:**
   It promotes the idea that ethical responsibility extends beyond humans to include all forms of life, encouraging actions that protect and preserve the environment for the benefit of all.

Implications of the Holistic Understanding of Harmony on Professional Ethics

9. **How does a holistic understanding of harmony influence professional ethics? Answer:**
   A holistic understanding of harmony emphasizes the interconnectedness of actions and their consequences, guiding professionals to consider the broader impact of their decisions on society and the environment.

10. **What are the ethical implications of viewing existence as co-existence for professionals? Answer:**
    Professionals are encouraged to adopt practices that promote sustainability, fairness, and respect for all stakeholders, recognizing that their actions contribute to the well-being of the larger community and the planet.