

SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107 **An Autonomous Institution**19GE701 Professional Ethics & Human Values

Question Bank

PART A

- 1. Define 'moral autonomy' in the context of engineering ethics
- 2. What are the two main types of inquiry used in exploring moral issues in engineering ethics?
- 3. How can consensus and controversy impact decision-making in engineering ethics?
- 4. What is the main difference between Kohlberg's and Gilligan's theories of moral development?
- 5. Elucidate the term 'moral dilemma' with an example relevant to engineering.

PART B

- 6. Discuss Kohlberg's theory of moral development and its implications for engineering ethics. Include examples of how different stages of moral development might influence ethical decision-making in engineering practice
- 7. Analyze a specific moral dilemma that engineers might face in their professional practice. Explain how various ethical theories could be applied to resolve the dilemma and evaluate the effectiveness of each approach.
- 8. Compare and contrast Kohlberg's and Gilligan's theories of moral development. How do their approaches differ in addressing moral issues, and what are the potential implications of each theory for understanding ethical behavior in engineering?
- 9. Examine the role of consensus and controversy in engineering ethics. How can engineers navigate ethical disagreements within their professional environment, and what strategies can be employed to reach a consensus on controversial issues?

PART C

- 10. An engineering firm is planning a large infrastructure project that promises significant economic benefits but has the potential to cause substantial environmental damage. The project is facing strong opposition from environmental groups and local communities, while stakeholders are divided on the benefits versus the environmental costs. Using the case study, evaluate the moral dilemmas faced by the engineering firm. Apply ethical theories such as utilitarianism, deontology, and virtue ethics to analyze the situation. Discuss how these theories could guide the firm's decision-making process and propose strategies to address both the ethical and practical concerns raised by the project.
- 11. A company is developing an autonomous vehicle that must navigate complex traffic situations. The vehicle's programming must make decisions in scenarios where harm is unavoidable, such as choosing between harming passengers or pedestrians.

Analyze this case study using both Kohlberg's and Gilligan's theories of moral development. Discuss how each theory would influence the decision-making process regarding the vehicle's programming. Evaluate the ethical considerations involved and suggest a balanced approach to addressing these moral dilemmas in the context of autonomous vehicle design