ourdiu.com | Shared by MD. HASIBUL HASAN SHANTO

Daffodil International University

Department of Electrical and Electronic Engineering

Faculty of Engineering

Midterm Examination, Fall – 2025

Course Code: EEE 0223-121
Section: A, B, C, D, E
Full Marks: 25

Course Title: Art of Living & Engineering Ethics
Level-Term: L2-T1
Exam Date: October 11, 2025

Teacher's Initial: RP
Time: 1.5 Hours

All the questions are compulsory

Q1.	Differentiate between a growth mindset and a fixed mindset. Explain briefly how neuroplasticity supports one of them.	CO-4 C-3	3
Q2.	Define Code of Ethics, Code of Morals, and Code of Conduct. Discuss these terms comparatively. You can use relevant examples.	CO-2 C-4	3
Q3.	Describe the common reasons for unethical behavior in engineering and explain briefly how they can escalate into serious issues.	CO-3 C-5	3
Q4.	An electrical engineer is part of a smart-meter installation project for households. During routine work, the engineer discovers that the algorithm in the billing system consistently overcharges low-consumption users by a small margin, while favoring high-consumption commercial clients. Reporting the issue would likely delay the project and anger management, who insist the error is "too minor to matter." At the same time, staying silent means many poor households will be unfairly billed. Identify what kind of moral situation this represents, mention possible causes behind such situations, and outline the key steps the engineer should take to resolve it responsibly.	CO-3 C-5	4
Q5.	In January 1986, a major space mission failed catastrophically soon after launch. Explain the purpose of the mission, the immediate technical cause, and the deeper organizational cause.	CO-2 C-4	4
Q6.	Define moral development? What are the levels of moral development according to Kohlberg? Describe each level. Illustrate the differences of Kohlberg and Gilligan theory	CO-2 C-4	4
Q7.	A city transportation authority is piloting an AI-based traffic control system. The algorithm is designed to minimize overall congestion, but in practice it diverts heavy traffic away from business districts and hospitals, pushing it into residential neighborhoods. This reduces economic losses and ensures emergency services move quickly, but residents in those areas now face long commutes, noise pollution, and increased health risks from exhaust fumes. As the lead engineer overseeing the pilot, you must decide whether to recommend continuing the system as it is or redesigning it, which would take months and cost more. Evaluate this situation using (a) Utilitarianism, (b) Duty Ethics, (c) Rights Theory and (d) Virtue Ethics.	CO-1 C-3	4