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**ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)**  
ORGANISATION OF ISLAMIC COOPERATION (OIC)  
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Examination: Final Semester

Academic Year: 2022 - 2023

Course Number: Hum 4225

Full Marks: 150

Course Title: Professional Ethics and Legal Issues

Time: 3 Hours

There are 8 (eight) questions. Answer 6 (six) questions. The symbols have their usual meaning.

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|----|----|--|----|-----|-----|
| 1. | a) | Elaborate the notion of "Technological Determinism".   | 10 | CO2 | PO2 |
|    | b) | Write a short proposal on how you would solve the highway killings and water shortage problems in your country in light of "Quick Fix" and "Social Engineering".   | 15 | CO3 | PO6 |
| 2. |    | Many of the OIC member countries' natural resource boom led to increased corruption, lower living standards of the poor and political instability. Multinational Corporations (MNCs) are accused of having disregarded the safety and livelihood of local people while installing their heavy machineries, communication and production lines. Local people protest, but to no avail. Elaborate what you feel the role of MNCs should be in these countries. | 25 | CO3 | PO8 |
| 3. |    | Present and defend your view as to whether affirmative action is morally permissible and desirable in:   | 25 | CO2 | PO4 |
|    |    | i. Admissions at engineering schools,  |    |     |     |
|    |    | ii. Hiring and promoting within engineering corporations.  |    |     |     |
| 4. | a) | Explain the notion of "Informed Consent".  | 10 | CO2 | PO2 |
|    | b) | Imagine that you have decided to develop a nuclear desalination plant in a certain coastal area suffering of acute shortage of drinkable water. Explain the ethical steps you should take before initiating the project as a qualified engineer and decision-maker of a given corporation.   | 15 | CO3 | PO8 |
| 5. |    | Corporate tradition tells us that engineers more often come into conflict with the managerial body, as in most cases they aim at maximization of profits only. Analyze the widely applicable principles for conflict resolution engineers should apply in their workplaces for the smooth operation of corporate industries.   | 25 | CO3 | PO8 |
| 6. |    | Imagine that your country has entered the aviation industry era. Learning from the past we can predict that soon it will be developing its flying war machines in form of fighter jets capable of carrying nuclear bombs. Analyze its necessity in light of "Mutual Deterrence" and the problems the defense industries could face in that case. Also propose some solutions to these hidden problems.   | 25 | CO3 | PO8 |
| 7. |    | Many of the Engineers work as consulting engineers. Considering the greater freedom to make decisions about the projects they undertake, explain the ethical norms they should follow while running their firms in the following issues:   |    |     |     |
|    |    | i. Advertising   | 10 | CO3 | PO8 |
|    |    | ii. Safety and client needs  | 15 | CO3 | PO8 |
| 8. |    | Write short notes on the following   |    |     |     |
|    |    | i. Biased software and stock market manipulation   | 10 | CO2 | PO2 |
|    |    | ii. AI and job elimination   | 05 | CO3 | PO4 |
|    |    | iii. Difference between standard experimentation and engineering   | 10 | CO3 | PO2 |