



# UNIVERSITY OF RUHUNA

## Faculty of Engineering

End-Semester 5 Examination in Engineering: March 2022

Module Number: IS5101

Module Name: Engineering Ethics (C-18)

[Three Hours]

[Answer all questions, each question carries twelve marks]

Each question has 3 parts. Your answer to each part should comprise about 200 words.

Discuss the following;

[4 Marks $\times$ 3=12 Marks]

- Engineering is the profession that provides the technical solutions necessary for contributing to a better and more efficient world.
- Everything that engineers do affects the society and its development but sometimes, the results are unanticipated and undesirable.
- The education of engineers focuses on developing technical capabilities but it has not sufficiently advanced the moral character of engineers.

Comment on the following;

[4 Marks $\times$ 3=12 Marks]

- Without training engineers in professional ethics, society cannot expect them to use the expertise and power for the welfare of the society.
- Ethical behavior is important in engineering because of the safety of people and the environment depend on the quality of the solutions that engineers deliver.
- Engineers of today needs a holistic understanding that goes beyond their own field of specialization.

Describe the following;

[ 4 Marks $\times$ 3=12 Marks]

- Engineering graduates are expected to demonstrate awareness of systems thinking, life cycles and sustainability.
- Engineering graduates must be exposed to managing risks, accountability and leadership roles in society.
- Engineers have a special concern for quality of their designs and safety of their products.

Q4. Write notes on the following;

[4 Marksx3=12 Marks]

- a) Engineers have an obligation to fulfill the duties of their job role as well as the duties towards the welfare of the society, environment and the subordinates.
- b) To be ethical is to do the right thing; to consider the well-being of others as equal to your own; and to act in ways that aim to maximize the social good.
- c) To be moral is to be fair and considerate of others, to show them the respect we ourselves demand that acknowledges rights to life, liberty and property.

Q5. Explain the following;

[4 Marksx3=12 Marks]

- a) Engineers should be guided by ethics, justice and equality and shall act with zero tolerance for bribery, fraud and corruption.
- b) Engineering ethics, social responsibility and continuous learning are essential components in engineering learning and practice.
- c) Engineers should be committed to improve the environment by adherence to the principles of sustainable development.

