> **Syllabus Objectives**
>
> After completing this set of notes, you should be able to:
>
> 3.4.1   Understand the code of ethics (conduct) of a Computing professional.
> 3.4.2   Describe the impact of computing on lifestyle and workplace for social and economic developments.
> 3.4.3   Discuss the social, ethical, legal and economic issues of computing and technology.

1   The Ten Commandments of Computer Ethics

➤ By the US based Computer Ethics Institute (now defunct) in 1992.

➤ A set of regulations to guide users to base computer related operations on strong ethical values.

➤ A way to make people understand the ethics involved in the use of technology.

➤ The ten commandments are:

  1.   Thou shalt not use a computer to harm other people

  2.   Thou shalt not interfere with other people's computer work

  3.   Thou shalt not snoop around in other people's files

  4.   Thou shalt not use a computer to steal

  5.   Thou shalt not use a computer to bear false witness

  6.   Thou shalt not use or copy software for which you have not paid

  7.   Thou shalt not use other people's computer resources without authorization

  8.   Thou shalt not appropriate other people's intellectual output

  9.   Thou shalt think about the social consequences of the program you write

  10. Thou shalt use a computer in ways that show consideration and respect

2   An International Perspective – IEEE Computer Society Code of Ethics

➢ Software engineers are required to commit themselves to making the analysis, specification, design, development, testing and maintenance of software a beneficial and respected profession.

➢ In accordance with their commitment to the health, safety and welfare of the public, software engineers are required to follow the eight principles in IEEE Computer Society Code of ethics.

➢ The eight principles are:

1. PUBLIC – Software engineers shall act consistently with the public interest.

2. CLIENT AND EMPLOYER – Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest.

3. PRODUCT – Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.

4. JUDGMENT – Software engineers shall maintain integrity and independence in their professional judgment.

5. MANAGEMENT – Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance.

6. PROFESSION – Software engineers shall advance the integrity and reputation of the profession consistent with the public interest.

7. COLLEAGUES – Software engineers shall be fair to and supportive of their colleagues.

8. SELF – Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

3   A Local Perspective – Singapore Computer Society (SCS) Code of Conduct for Members

➢ Divided into four main categories.

➢ States that SCS members will
  - act at all times with **<u>integrity</u>**
  - accept **<u>full responsibility</u>** for their work
  - always aim to increase their **<u>competence</u>**
  - act with **<u>professionalism</u>** to enhance the prestige of the profession and the Society

➢ The details of the categories are shown below:

Integrity	Full Responsibility
SCS members will act at all times with integrity. They will: • not lay claim to a level of competence that they do not possess • act with complete discretion when entrusted with confidential information • be impartial when giving advice and will disclose any relevant personal interests • give credit for work done by others where credit is due	SCS members will accept full responsibility for their work. They will: • carry out their assignments in a professional manner • adhere to their employers' or client's standards and guidelines • indicate to their employers or clients the consequences to be expected if their professional judgement is overruled
Competence	**Professionalism**
SCS members will always aim to increase their competence. They will: • continue to upgrade their knowledge and skills, and be aware of relevant development in the technology they are involved in • provide opportunity and encouragement for professional development and advancement to fellow professionals and aspirants to the profession • extend public knowledge, understanding and appreciation of information technology and to oppose false or deceptive statements related to information technology of which they are aware	SCS members will act with professionalism to enhance the prestige of the profession and the Society. They will: • uphold and improve the professional standards of the Society through participation in their formulation, establishment and enforcement • not seek personal advantage to the detriment of the Society • not speak on behalf of the Society without proper authority • not slander the professional reputation of any other person • use their special knowledge and skill for the advancement of human welfare

Sample Question [9569 Specimen Paper Q7]

Computing professionals are usually required to conduct themselves ethically. A company has asked you to write a code of conduct for the computing professionals employed by that company.

The areas of conduct that should be included in the company's computing professionals' code of conduct include:

- Integrity
- Responsibility
- Competence
- Professionalism

(a) Give **one** example of a rule that you would expect to be included in each area of conduct. Each rule given must be different. [4]

(b) For **two** of your rules, give an example of the unethical behaviour it is designed to prevent. [2]

4   From Ethics to Law

Basis for Comparison	Law	Ethics
Meaning	A systematic body of rules that governs the whole society and the actions of its individual members.	A branch of moral philosophy that guides people about the basic human conduct
What is it?	Set of rules and regulations	Set of guidelines
Governed by	Government	Individual, Legal and Professional norms
Expression	Expressed and published in writing	They are abstract
Violation	Violation of law is not permissible which may result in punishment like imprisonment or fine or both	There is no punishment for violation of ethics.
Objective	Law is created with an intent to maintain social order and peace in the society and provide protection to all the citizens	Ethics are made to help people to decide what is right or wrong and how to act
Binding effect	Law has a legal binding	Ethics do not have a binding nature

➢ The followings local legislative acts are related to the use and misuse computers:

- Copyright Act 2021
  https://sso.agc.gov.sg/Act/CA2021

- Protection from Online Falsehoods and Manipulation Act 2019
  https://sso.agc.gov.sg/Act/POFMA2019

- Cybersecurity Act 2018
  https://sso.agc.gov.sg/Act/CA2018

- Protection from Harassment Act 2014
  https://sso.agc.gov.sg/Act/PHA2014

- Personal Data Protection Act 2012
  https://sso.agc.gov.sg/Act/PDPA2012

- Patents Act 1994
  https://sso.agc.gov.sg/Act/PA1994

- Computer Misuse Act 1993
  https://sso.agc.gov.sg/Act/CMA1993