

Even (Spring) Semester Examination 2022
Paper Code: MS 432; Paper name: Professional Values & Ethics
B Tech Computer Science and Engineering
VIIIth Semester 2022
Full Marks: 80; Time: 3Hrs.

(The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as possible)

GROUP: A (Answer all the questions)

(1 x 10 = 10)

- I. Which of the following philosophical principles in ethics emphasises the consequences of action, rather than following the rules?
- (a) Imperative principle ☒ (b) Utilitarianism principle
(c) Generalization principle (d) Moral principle
- II. A written statement of policies and principles that guides the behaviour of all employees is called:
- ☒ (a) Code of ethics (b) Word of ethics (c) Ethical dilemma (d) None of the above
- III. Competence in professional ethics refers to:
- (a) Ability to utilize power effectively (b) Ability to augment the universal human order
(c) Ability to make a profit ☒ (d) Both b and c
- IV. Many human values seem good or right due to:
- (a) Positive feelings (b) Internal happiness (c) Natural acceptance ☒ (d) All the above
- V. The purpose of value education is to:
- (a) Foster universal core values (b) Make the syllabus easy
(c) Develop values in individuals ☒ (d) both (a) and (c)
- VI. The general and abstract concepts of right and wrong behaviour culled from philosophy, theology, and professional societies are:
- ☒ (a) Ethics (b) Morals (c) Etiquette (d) Law
- VII. A moral theory that seeks to create the best for the most people
- (a) Whistleblowing ☒ (b) Utilitarianism (c) Morals (d) Rights analysis

VIII. A situation in which an engineer's loyalty and obligations may be compromised because of self-interests or other loyalties and obligations is:

- ☒ (a) Conflict of interest (b) Conceptual issue (c) Concern of interest (d) Interaction rules

IX. Expected sets of behaviour (etiquette, law, morals, and ethics) between the engineer, other individuals and society as a whole are:

- (a) Conceptual issue ☒ (b) Application issue (c) Legal rights (d) Interaction rules

X. The accepted standards of right and wrong that are usually applied to personal behaviour are:

- ☒ (a) Morals (b) Law (c) Etiquette (d) Ethics

GROUP: B (Answer any five questions)

(5 x 5 = 25)

2. Why is engineering ethics important?



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1. Corporate Social Responsibility makes companies more sustainable. Explain:

Corporate Social Responsibility (CSR) means companies care about people, the environment, and society, not just profit. When businesses act responsibly—like reducing pollution, treating workers fairly, or helping communities—they build trust, avoid legal issues, and use resources wisely. This helps them succeed long-term, making them more sustainable.

2. Discuss in detail the employee rights:

Employees have certain rights to ensure fair and safe working conditions. These include:

- Right to fair wages ↓ employees should be paid

Ask anything





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2. Discuss in detail the employee rights:

Employees have certain rights to ensure fair and safe working conditions. These include:

- Right to fair wages – Employees should be paid fairly for their work.
- Right to a safe workplace – Employers must provide a healthy and safe environment.
- Right to privacy – Personal information should be protected.
- Right to equal opportunity – No discrimination based on gender, race, religion, etc.
- Right to rest and leave – Employees should get breaks, holidays, and leave.
- Right to join unions – Workers can form or join groups to protect their interests.

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- Right to privacy – Personal information should be protected.
- Right to equal opportunity – No discrimination based on gender, race, religion, etc.
- Right to rest and leave – Employees should get breaks, holidays, and leave.
- Right to join unions – Workers can form or join groups to protect their interests.
- Right to be heard – Employees should be able to voice concerns or complaints.

3. What are the different types of problems in 'computer ethics'?

Computer ethics deals with the moral issues of using computers. Common problems include:



Ask anything





3. What are the different types of problems in 'computer ethics'?

Computer ethics deals with the moral issues of using computers. Common problems include:

- Privacy – Misuse of personal data.
- Hacking – Unauthorized access to systems.
- Piracy – Copying software or media without permission.
- Digital divide – Unequal access to technology.
- Cyberbullying – Online harassment.
- Plagiarism – Copying content without credit.
- AI misuse – Unfair or harmful use of artificial intelligence.



Ask anything





4. Responsibilities of an engineer to society as an experimenter:

Engineers often create or test new things that can affect people. Their responsibilities include:

- Ensure safety – Protect people from harm.
- Be honest – Report true results.
- Respect rights – Get permission before testing on people.
- Think long-term – Consider how their work affects future generations.
- Follow laws and ethics – Stick to rules and moral values.
- Be transparent – Inform the public about risks.



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Environmental Regulation

Important Provisions of the Environmental Regulations Acts:

1. The water (Prevention and Control of Pollution) Act, 1974 along with amendment act 1978.
 2. The Air (Prevention and Control of Pollution) Act 1981.
 3. The water (Prevention and Control of Pollution) Act 1977.
 4. The water (Prevention and Control of Pollution) Rules of 1978.
 - (a) Minimal National Standards for emission of pollution gases and industrial effluents.
 - (b) Other laws enacted to protect environment are:
 5. The Air (Prevention and control of Pollution) Act, 1981 amended in 1988.
 6. The environment (Protection) Act, 1986.
 7. The water (Prevention & Control of Pollution) Act, 1974. amended in 1974 and 1988.
 8. The Hazardous Wastes Act, 1989.
 9. The Wildlife Protection Act, 1972.
 10. The Forests (Conservation) Act, 1980 amended in 1988.
 - a. Regulatory agencies such as National A forestation and Eco development Board and National Waste land Development Boards also have been set for the environmental protection.
 - b. Various industrial pollution control Projects such as Clean Ganga Acton Plan, Pushkar Lake Valley, Auroville (T.N), Tumkur (Karnataka), Gopeswar in UU & Shivalik in Punjab have also been carried out for protection of Environment.
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Environmental Ethics

a. Important Parameters

- (i) **Environmental Threats :-** Greenhouse Gases, Depletion of Ozone Layer, Acidification of Water / Soil Urban pollution & Noise, Metals effects. Organic pollutants effects, Land and water in appropriate use, Land, Water exploitation Housing/ Industrial Infrastructure, Pressure on conservation.
Non Cyclic Material flows & Hazardous residues.
- (ii) **Greenhouse Effect:-** Ideal global temperature is average 150C, or else the world will freeze, the emissions of CO₂ cause alarming tem premature increase and polar ice caps to melt and increased ocean water levels which may submerge many parts of low lying areas, causing hardship[s] for human residents.
- (iii) **Greenhouse Gases:-** CO₂ Nitrogen Oxides, CFCs, HFCs, Halogens convert hydrocarbons to Cl₂, Fl₂, Br₂ and I₂ and replace H₂.
- (iv) **Ozone:-** It is in atmosphere and protects life against harmful UV radiation, but at ground level, it is it is harmful to lie and forms breathing disorders. Its depletion is causing holes at Poles, from where the UV radiation is leaching in.
- (v) **Whistle Blowing:-** Whistle blowing is an attempt by an employee to disclose, what is proclaimed to be wrong doing by an organization, reporting misdemeanor to some one.
- (vi) **Strategy :-**
 - (a) **Reactive Strategy:-** Resistance of public or government pressures by legal means.
 - (b) **Defensive Strategy:-** A firm defends its position by less aggressive means. The firm does the minimum requirement and not more, unless compelle3d to do so.
 - (c) **Strategy of Accommodation:-** More progressive of the strategies, incl9ude acceptance of ideas for social changes, firm's resistance is to the extent of what is not in its best interests. Most companies adopt this strategy.

b. Environmental Ethics – Case Study

Proactive strategy followed by progressive firms where numbers low, but have social good in their active policy. foreign companies operating in Pune since 1960s, installed Eco friendly processes, had concern for water, air and surrounding environment and quality of life for its employees and neighbors.

TELCO planted more than ten million trees and filled up blasted craters with lakes of quality water, so also Kirloskar group companies followed this process.

Before 1960s Pune was green, while the industrial belt running from Kasar wadi to Nigdi, was all non agricultural land. The rocky surface has no top soil, except for a new inches of acidic mud. The govt. Of Maharashtra decided to open the area for rapid industrialization.

The factories first took up ecological development and side by side the mfg. infrastructure.

The result to day is that the residential Pune has become a concrete, unplanned chaos, while industrial area is lush green like Send Society and adjoining University campus, including Spicer college premises, are exceptions.

Here the residents have resisted all moves by Municipal authorities to open up for multi storied monsters and render the remaining lungs of, what was once a beautiful city, into a mega mess, here also.

Appropriate Technology Movement of Schumacher & Later Developments

The economist E.F. Schumacher has claimed that the most pressing social need at present is finding ways of decreasing consumption. Increasing consumption has led to a rapid industrial expansion that has polluted much of the natural environment and has rapidly depleted our non renewable resources. Unless we limit consumption, we will soon out run the crinite natural resource our planet possesses with disastrous consequences for us all.

However, Schumacher' claim ay hold good for the third world countries, poor nations which are deprived



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Role of Ethics in Corporate Excellence (Points):

1. Builds trust with customers and employees
2. Improves company's reputation
3. Increases employee motivation and loyalty
4. Helps avoid legal issues
5. Supports long-term success
6. Attracts more customers and investors
7. Promotes fairness and responsibility



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1. Moral Development Theories:

These theories explain how people learn what is right and wrong.

- Piaget's Theory:

Children move from obeying rules blindly to understanding and making moral choices.

- Kohlberg's Theory (3 levels):

1. Pre-conventional: Right/wrong based on punishment or reward.

2. Conventional: Follow rules to gain approval or keep order.

3. Post-conventional: Make decisions based on ethics and human rights.

- Gilligan's Theory:

Focuses more on care and relationships, especially in moral decisions by women.

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especially in moral decisions by women.

2. "A good professional is not merely a hired gun."

Explain:

This means a true professional does not just follow orders for money. Instead:

- They think about what is right or wrong.
- They care about public safety and ethics.
- They may refuse to do harmful work, even if they are paid.

A good professional uses moral judgment, not just skills.



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3. Ethical Theories (in detail but simple):

These are rules or ideas to help decide what is right or wrong.

- Utilitarianism:

Do what gives the most happiness to the most people.

(Example: Choose the option that benefits many.)

- Deontology (Duty Ethics):

Follow rules and duties, no matter the result.

(Example: Always tell the truth.)

- Virtue Ethics:

Be a good person with good character (honesty, kindness, etc.).

(Example: Ask, "What would an honest person do?")



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- Virtue Ethics:

Be a good person with good character

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(Example: Ask, "What would an honest person do?")

- Rights Theory:

Respect everyone's basic rights (like life, freedom, privacy).

(Example: Don't harm others, even for a good cause.)

- Justice Theory:

Be fair and give people what they deserve.

(Example: Equal pay for equal work.)

Let me know if you want  version for slides or notes!

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1. What do you mean by Code of Ethics?

A Code of Ethics is a set of rules that guide how professionals should behave honestly and responsibly in their work.

Why is it important?

- Helps professionals know what is right or wrong
- Builds trust with clients and society
- Promotes fairness and respect
- Maintains a good reputation for the profession
- Prevents misuse of power or knowledge



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Limitations of Code of Ethics:

- It may be too general or unclear
- Hard to enforce or punish violations
- Some people may ignore it for profit
- May conflict with personal values or company rules

2. What do you mean by Intellectual Property Rights (IPR)?

IPR are legal rights that protect creations of the mind like inventions, music, books, logos, and designs. They give the creator control over the use of their work.



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Types of IPR (Explained Simply):

1. Copyright:

Protects books, music, films, software, etc.

(Example: A song cannot be copied without permission.)

2. Patent:

Protects new inventions or technologies.

(Example: A new machine or drug.)

3. Trademark:

Protects brand names, logos, slogans.

(Example: Nike logo or Coca-Cola name.)

4. Trade Secrets:

Protects secret business information.

(Example: Coca-Cola's recipe.)

5. Industrial Design:



Protects the visual design of products.

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5. Industrial Design:

Protects the visual design of products.

(Example: The shape of a fancy bottle.)

6. Geographical Indication (GI):

Protects products made in a specific place.

(Example: Darjeeling tea, Basmati rice.)



Ask anything

