

- ① Collegiality is a kind of connectedness in respect for professional expertise and in a commitment to the goals and values of the profession.
- ② core elements of collegiality are Respect, Commitment, Connectedness and Co-operation.
- ③ There are two meanings for the word 'loyalty'
Agency Loyalty
Identification loyalty.
- ④ The right granted by the government to an inventor to prevent others from imitating, manufacturing, using or selling his invention for commercial purpose.
- ⑤ Occupational crimes are illegal activities in one's company or an organisation. It is the violation of laws regulating the work activities.
- ⑥ An idea, a design, a manuscript, an invention or a concept which will give rise to a useful product is known as Intellectual property.

⑦ confidential information is the infoⁿ which is desirable to keep secret in a govt dept or a private company. Engineers and the employees are expected to maintain confidentiality of the org.

⑧ Whistle-blowing:

When an employee or former employee conveys infoⁿ about moral problem to the authority, alerting or cautioning the authority to take action about moral problem is known as whistle-blowing.

⑨ Employee rights:

- a) Employee should not be discriminated against one's race, sex, age or nationality.
- b) No org should discriminate against an employee for criticizing.
- c) No org should discriminate against employee for being engaged in outside activities of his or her choice.
- d) No employee in an org who finds faults that his rights have been violated, shall be discharged or penalised.

- ⑩ Discrimination in an org means preference given to an employee on the grounds of sex, race, nationality etc; whether it is justified or not. Simply unfair treatment of the employee.
- ⑪ Conflicts of Interest are the situations where professionals have a self interest. If self interest is given importance, it may keep them away from meeting their obligations to their clients or employers.
- ⑫ Employee Rights:
 Similar to professionals, employees are also entitled for moral & legal rights. For eg, an employee has right to disobey unethical directives & to express dissent about company policies.
- ⑬ Employees form an association called 'Union'. When the management refuses to fulfill their rights, they go under strike. The representatives from both sides (employer & employee) discuss the issues & reach a compromising solutⁿ acceptable to both sides. This is known as "collective Bargaining"

(14) Ans - 5th Question.

(15) The right of professional conscience of engineers is moral right to perform their professional responsibilities without interference from others.

(16) Different types of

(17) Different types of occupational crimes:

Industrial Espionage

Price Fixing

Endangering Lives.

(18) Copy Right:

certain intellectual properties are not patentable.

They are protected by "copy right". It is limited in both time & extent. Copy right provides protection for a specified period from reproduction of materials.

(19) 4th Ans.

limits of patent:

time limit - patent is valid for specified period of time. (15 to 20 years)

space limit - patent is valid only in the country where it is awarded.

(20) Three types of Authority are:

Institutional Authority

Expert Authority

Power Authority

(21)

Bribe

A bribe is a substantial amount of money or goods offered apart from business contracts with aim of gaining from the contract or keeping the contracts

Gift

Gifts are not Bribes as long as they are small amount offered in normal conduct of business given for recognition of service.

(22)

A multinational corporation is usually a large corporation incorporated in one country which produces or sells goods in various countries.

(23)

Increase in no. of automobiles on roads, use of plastics etc; cause great damage on envt. Protection of envt should become a united commitment across national boundaries. Hence a new branch of applied ethics called "envt ethics" has developed which aims

at total envt protection.

- (24) Computer ethics is a branch of engineering ethics. Many professionals who use and control comp, share the responsibility for computer applications.
- (25) Yes. Engineers should follow ethics when working in armed & services building bridges, nuclear plants and weapons development.
- (26) Corporations doing business in other countries should apply these human rights concept. These are often called as International Human Rights.
- (27) "Technology transfer" is the process of moving the technology to a novel setting and implementing it there. Here technology includes both h/w & technique.
- (28) "Appropriate technology" refers to identification, transfer and implementation of more suitable technology for a new set of conditions.

(29) Normal rain water has a pH value of 5.6, but the typical rain water in North America has pH of 3.9 to 4.3. This is 10 to 100 times more acidic. This causes mass killings of fish, harms fish-eggs, food sources etc,

(30) ~~Asbestos~~ Asbestos industries pollute atmospheric air & cause lung diseases, cancer and breathing problems

(31) Embezzlement

a) Disguising one's voice by means of computer as he talks into a phone.

b) Getting access to internet by using the phone no. of someone else's without his knowledge.

(32) Hackers are those who challenge any computer security system. This will "choke" networks with dead-end tasks, erase files & even destroy equipment.

(33) Contingency fee is the amount paid to the consulting engineer, based on the performance of satisfactory work. It is paid only if he saves clients money.

(34) A few engineers violate ethical standards while conducting investigations and act as "hired guns". These engineers spoil the reputation of entire group of engineers.

(35) professional societies in India:
Indian institute of materials management (IIMM)
Medical council of India (MCI)
Institution of Electronics & Telecommunication engineers (IETE)

(36) A code of conduct involves professional himself/herself. It guides the professional how to conduct him/herself in the way of discharging his/her duties.

(37) Globalization refers to the growing interdependence of countries resulting from the increasing business ~~of~~ an integration of trade, finance, people & ideas in one global marketplace.

(38) International human rights:
a) right to ownership of property.
b) right to a fair trial.
c) right to minimal education.
d) right to political participation.
e) right to freedom from torture.

(40) When a country A sets up industry in another country B, country A should follow the culture & practices of country B. This is the meaning of "when in Rome, do as the Romans do".

(41) Ans - 27, 28

(42) professional societies in USA:
 ASCE - American society of civil engineers.
 ASME - " " " mechanical "
 IEEE - Institution of Electrical & Electronics engineers.

(43) "code of ethics" includes the professionals & society. It tells a professional about discharging his/her duties & responsibilities in way of practising profession of engineering in society.

(44) Engineering employees find themselves responsible for leading teams and managing projects, as well as being accountable for budgets & assets.

(45)