Mahendra Engineering College, Mahendhirapuri

Department of Electronics and Communication Engineering

Model Question Bank

UNIT – V
2 MARKS QUESTIONS AND ANSWERS

1. What is meant by moral leadership?
- Whenever the goals of a leader become permissible and also morally valuable, it is known as moral leadership.
- Moral leadership also means that employing morally acceptable ways to motivate the groups to move towards morally desirable ways. The ways are depending on the situations.

3. What is code of ethics?
- Code of ethics is a frame work for arriving at good ethical choices.
- The code of ethics establishes a frame work for ethical judgment for any profession.
- A code of ethics does not develop new moral principles.

4. What are the common features involved in the code of ethics for Engineers?
- Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.
- Engineers shall perform services only in the areas of their competence.
- Engineers shall issue public statements only in an objective and truthful manner.
- Engineers shall act in professional matters for each employer or client as faithful agents or trustees.
- Engineers shall avoid deceptive acts in the solicitation of professional employment.

6. What is the need for Honesty?
Honesty is necessary to avoid deceiving and to be frank in giving all the relevant facts. It is also necessary to be truthful in interpreting the facts. Honesty in technical data is essential to be honest in engineer's role and for the values guiding his studies.

7. What is meant by Competence?
Competence means being well trained and having proper experience in the relevant field and also having the required additional skills planning and policy making.

8. What does Diligence mean?
Diligence means carrying out the given job carefully and in a prompt way.

9. Define Loyalty?
Loyalty refers to serving the interests of the clients. It includes avoiding conflicts of interests maintaining confidentiality and expressing concern for the interest of the clients.

10. What is the basic ethical and moral responsibility of a manager-engineer?
Ethical responsibility:
      The basic ethical responsibilities of managers are to produce a good product or valuable service, only after taking into consideration maintaining respect for human beings, which includes customers, employees and the general public.
Moral responsibility:
As managers, engineer's moral responsibility is to produce safe and useful products
That are also profitable. Eye Witnesses Expert Witnesses Eyewitnesses give evidences in the court about what they have seen actually. Expert witnesses are allowed larger freedom in giving evidence on facts in there areas of expertise on explaining facts in commenting on the views of the expert witnesses of the opposite side and also in reporting on the professional standards

11. .What are the different ways to create an ethical climate?
      The following are the ways to create an ethical climate:
- Ethical values must be accepted and appreciated by the managers and employees with its full complicated features.
- The sincere use of ethical language has to be recognized as a justifiable part of the company.
- The management has to create a strong confidence among the employees that the management is more serious about ethics by establishing moral tone in words, in policies and also by personal example.
- The management has to establish some procedures for resolving conflicts.

12. What are the important forms of conflicts that may arise for an engineering project manager?
      The important forms of conflicts that may arise for an engineering project manager are,
- Conflicts based on schedules.
- Conflicts which arises in evolving the importance of projects and the department.
- Conflicts based on availability of personal for a project.
- Conflicts over technical matters.
- Conflicts which arises due to administrative procedure.
- Conflicts of personality.
- Conflicts over cost or expenditure.

13. What are the principles for conflict resolution?
      The following are the principles for conflict resolution:
- People must be separated from the problem
- Focus must be only on interest and not on positions
- Various options must be generated
- An evolution criteria should be established

14. Who are referred as consulting engineers?
      Consulting engineers are those involved in private practice. For the services rendered by them, they will be paid some fees. They won't be compensated by salaries from employers. They are the sole employer of their practice. So they have greater freedom to take decisions on the tasks undertaken by them.

15. What are the rules framed by NSPE in case of professional advertisements?

The rules framed by NSPE (National Society of Professional Engineers) in case of professional advertisements are as follows:

- The use of statements containing a material misrepresentation of fact or omitting a material fact necessary to keep the statement from being misleading.
- Statements intended or likely to create an unjustified expectation.
- Statements containing prediction of future success.
- Statements containing an opinion as to the quality of the engineer's services.
- Statements intended or likely to attract clients by the use of slogans, jingles or sensational language format.

16. What do you mean by appropriate technology?

Appropriate technology means identification, transformation and implementation of the most suitable technology for a new set of conditions.

17. What are the ill effects of acid rain?

- Bacteria's that are essential for life systems to be active are killed.
- High acidity results in reduced growth and killing of fishes.
- Vanishing of greenery and destruction of forests.
- Germination of seeds is affected affecting the growth of trees.

18. What do you mean by technology transfer?

Technology transfer is a process of changing the technology to a new setting and implementing it. Technology includes hardware such as machines and installations as well as techniques such as technical, organizational and managerial skills and procedures.

19. What are the ethical issues or questions that arise in environmental protection?

Often the questions that arise in the ethical issues are,
Who is affecting?
Who are affected?
Does the environment gets disturbed?
When do the disturbances takes place and how does it happen?

20. Quote some examples of pollution that spoiled the environment?

Some examples of pollution that affected the environment are Bhopal gas tragedy, Chernobyl nuclear plant explosion, Artificial rains, Meuse valley disaster at Belgium, Oleum gas leak in Delhi, HPCL disaster in Vizag, Donova (USA)steel and chemical plant disaster, Tehri Dam in U. P. state, etc.

21. What is computer ethics?

Computers contribute to a variety of moral problems. In order to evaluate and act appropriately with such problems, a new field of applied ethics termed as 'computer ethics' has been developed.

22. Give any ten commandments of computer ethics?

- Don't use a computer to harm other people.
- Don't interfere with other people's computer works.
- Don't snoop around in other people's computer files.
- Don't use a computer to steal.
- Don't use a computer to bear false witness.

23. What is hacking?

When computers are the main objects of an unethical act, it will create some ethical issues. This kind of act is called hacking.

24. What is autonomous computer?

The autonomy of computers means the ability of computer to make decisions without the interference of human beings. This autonomous function of computers creates a lot of implication.

25. What are the three versions of Relativism?

- Ethical Relativism
- Descriptive Relativism
- Moral Relativism

26. What are the moral dimensions of an Engineer-manager?

- Information rights and obligation
- Property rights
- Accountability and control
- System quality
- Quality of life

27. Give any ten International rights suggested by Donaldson?

- The right to freedom of physical movement.
- The right to ownership of property.
- The right to freedom from torture.
- The right to a fair trial.
- The right to nondiscriminatory treatment.
- The right to physical security.
- The right to freedom of speech and association.
- The right to minimal education.
- The right to political participation.
- The right to subsistence.

28. What are the reasons for the disaster at Bhopal?

- The tanks used to store Methyl Iso-cyanate were overloaded to a tune of 75%.
- The emergency plant was also filled with a large amount of chemicals.
- The entire refrigeration unit had been shutdown as a measure to reduce the cost and this led to increase of temperatures to a higher level.
- One of the disappointed workers unscrewed a pressure gauge on a tank and inserted a hosepipe into it, knowing that it would cause damage, but not to this extent.
- Scrubber has also been shut down.
- Flare tower was also not in an operating condition.
- Unfortunately there were no emergency drills or evacuation plants available.

29. Give some of the Environmental issues of concern to engineers?

- Releasing harmful substance into air and water.
- Using toxic substance in food processing.
- Disturbing land and water balances.

30. What are the issues in Computer ethics?
Power Relationship
Job Elimination
Customer Relations
Biased Software
Stock Trading
Unrealistic Expectations
Political Power
Military Weapons
Property
Embezzlement
Data and Software
Privacy
Cyber crimes
Computer Virus
Techno stress
Cyber Scams and Frauds
Internet Defamation
Software Piracy
Cyber Squatting
Inappropriate Access
Data Bank Errors
Hackers
Legal Responses
Professional Issues
Computer Failures
Computer Implementation
Health conditions

31. What are the problems of Defense industry?
- Problem of waste and huge cost in implementing and maintaining a weapons system.
- Problem of Technology creep.
- Problems in maintaining secrecy.
- Every country allocates large amount of its resources to defense sector [India spent ¼ of its resource for defense]

32. What are ways to promote an Ethical climate?
- Ethical values in their full complexity are widely acknowledged and appreciated by managers and employees alike.
- The sincere use of ethical language has to be recognized as a legitimate part of corporate dialogue.
- The top level management must establish a moral tone in words, in policies, by personal example etc.
- The management has to establish some procedures for resolving conflicts.

33. What are the important forms of Conflicts?
- Conflicts based on schedules
- Conflicts which arises in evolving the importance of projects and the department.
- Conflicts based on the availability of personal for a project.
- Conflicts over technical matters.
- Conflicts arise due to administrative procedure.
- Conflicts of personality.
- Conflicts over cost or expenditure or money.

34. What are the Principles of Conflicts of interest?
- Separate people from the problem.
- Focus on interest and not on positions.
- Generate a variety of possibilities before deciding what to do.
- Insist that the result be based on some objective standard.

35. What are the normative models to be used to avoid conflicts?
- Hired Guns
- Value-neutral Analysts
- Value-guided Advocates

36. What are the characteristics of an engineer as expert advisers in public planning and policy Making?
- Honesty
- Competence
- Diligence
- Loyalty

37. How can Deceptive advertising be done?
- By outright lies.
- By half-truths.
- Through exaggeration.
- By making false innuendos, suggestions or implications.
- Through obfuscation created by ambiguity, vagueness or incoherence.
- Through subliminal manipulation of the unconscious.

38. Give the usage of the code of conduct?

The code of conduct will help the engineers to have a set of standards of behavior. They act as guidelines for their behavior. It helps to create workplaces where employees are encouraged to make ethical implications.

39. What are professional issues of using computers?
a. Computers failures
b. Computer implementation
c. Health conditions

40. What are the requirements of Patents?
a) Problem of invention
b) Current report of the problems to address
c) Solution or procedure to the problem
d) Extent of novelty or inventive
e) Application or uses
f) Details of the inventor
g) Resources of funds

40. What are the types of Patents?
a. Utility patents
b. Design patents
c. Plant patents

41. What is the need for Protection to IPR?
a) Prevent plagiarism.
b) Prevent others using it.
c) Prevent using it for financial gain.
d) Fulfill as an obligation to funding agency.
e) Support income generation strategy.

42. What is the Importance of IPR?
a. Give the inventors exclusive rights of dealing.
b. Permit avoiding pf competitors and raise entry barriers.
c. Permit entry to a technical market.
d. Generate steady income by issuing license.

43. What is a Trade secret?
A trade secret is a secret formula, pattern, or device that is used in a business and provides a commercial advantage.

44. Define Whistle Blowing?
     Whistle-blowing is alerting relevant persons to some moral or legal corruption, where "relevant persons" are those in a position to act in response, if only by registering protest. i.e. the employee disclosure of an employer's illegal or illegitimate practices to persons or organizations that may be able to take corrective actions. The conditions to be met for whistle-blowing are
a. Need
b. Proximity
c. Capability
d. Last resort

45. What are the main features of Whistle Blowing?
a. Act of disclosure
b. Topic
c. Agent
d. Recipient

46. Differentiate External Whistle Blowing and Internal Whistle Blowing?
External Whistle Blowing – Information is passed outside the organization.
Internal Whistle Blowing – Information is conveyed to someone within the organization.

47. Differentiate Open Whistle Blowing and Anonymous Whistle Blowing?
Open Whistle Blowing – Individuals openly reveal their identity as they convey the information. Anonymous Whistle Blowing – Involves concealing one's identity.

48. When Whistle Blowing is morally permitted and morally obligated?
Whistle blowing is morally permitted when
i. If the harm that will be done by the product to the public is serious and considerable.
ii. If they make their concerns known to their superiors.
iii. If getting no satisfaction from their immediate supervisors, they exhaust the channels available within the corporation, including going to the board of directors.
Whistle is morally obligated when
i. He or she must have documented evidence that would convince a reasonable, impartial observer that his [or her] view of the situation is correct and the company policy wrong.

ii. There must be strong evidence that making the information public will in fact prevent the threatened serious harm.

49. What are the two general ways to apply ethical theories to justify the basic right of professional conscience?
i. Proceed piecemeal by reiterating the justifications given for the specific professional duties.
ii. Justify the right of professional conscience, which involves grounding it more directly in the ethical theories.

50. Define Employee Rights?
Employee rights are rights, moral or legal, that involve the status of being an employee. They include some professional rights that apply to the employer-employee relationship.

51. Define Sexual Harassment?
Sexual Harassment means continuous annoying and attacks on men or women on the basis of sexual considerations. It also covers the harassment by female superiors on the male employees and sexual harassment of employees by superiors of the same sex. It includes physical and psychological attacks, coercion, misuse of authority and a variety of undesirable and indecent actions.

52. Define Discrimination?
Discrimination means morally unjustified treatment of people on arbitrary or irrelevant grounds.

53. What are the general procedures for implementing the right to due process?
* Written explanations should be established that is available to all employees who believe their rights have been violated.
* An appeals procedure should be established that is available to all employees who believe their rights have been violated.

54. Differentiate Human Rights and Professional Rights?
Human Rights – Possessed by virtue of being people or moral agents.
Professional Rights – Possessed by virtue of being professional having spcial moral responsibilities.

55. Differentiate Weak Preferential Treatment and Strong Preferential Treatment?
Weak preferential treatment involves giving an advantage to members of traditionally discriminated-against groups over equally qualified applicants who are members of other groups. Strong preferential treatment involves giving preference to minority applicants or women over better qualified applicants from other groups.

12 MARK QUESTIONS

1. What are multinational corporates?
2. Explain the meaning of environmental ethics.
3. What is meant by computer ethics?
4. Discuss an engineer's involvement in weapons development.
5. Why do most of engineers move into managerial roles?
6. Who are consultants? Explain the role of engineers as consultants.
7. Discuss the role of engineers as expert witness and advisors.
8. What is moral leadership? Who are moral leaders?