

B.Tech. DEGREE EXAMINATION, MAY 2017
Third / Fourth Semester

15IT214 – PROFESSIONAL ETHICS

(For the candidates admitted during the academic year 2015 – 2016 onwards)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 45 minutes and OMR sheet should be handed over to hall invigilator at the end of 45th minute.
- (ii) **Part - B** and **Part - C** should be answered in answer booklet.

Time: Three Hours

Max. Marks: 100

PART – A (20 × 1 = 20 Marks)

Answer **ALL** Questions

1. An approach towards societal problem is referred to as
(A) Macro ethics (B) Micro ethics
(C) Morality (D) Normative inquiry
2. The perception of truth and the ability to distinguish between right or wrong is
(A) Courage (B) Temperance
(C) Wisdom (D) Justice
3. A virtue of maintaining personal discipline is
(A) Self control (B) Self respect
(C) Self actualization (D) Self esteem
4. The saying, “actions are normally right when they are approved by law or custom” is termed as
(A) Ethical relativism (B) Ethical pluralism
(C) Moral rationalism (D) Ethical egoism
5. Informed consent includes the following two elements
(A) Knowledge and voluntariness (B) Knowledge and non-voluntariness
(C) Voluntariness and views (D) Opinions and voluntariness
6. Large-scale engineering projects involve
(A) Fragmentation of work (B) Decoupling of work
(C) Wholesome work (D) Field work
7. Standards are established by _____ for in-house use
(A) Professional associations (B) Trade associations
(C) Individuals (D) Companies
8. The primary reason for failure of challenger space shuttle was _____
(A) Rupturing of O-rings due to cold water (B) Fuel insufficiency
(C) Improper take off (D) Improper ignition

9. A deductive method to identify the cause of failure is
 - (A) Scenario analysis
 - (B) Failure mode and effect analysis
 - (C) Fault-tree analysis
 - (D) Event-tree analysis
10. Identify the type of testing where the risk is identified by testing the component till it fails
 - (A) Function testing
 - (B) Prototype testing
 - (C) Destructive testing
 - (D) Simulation testing
11. "Potential that something unwanted and harmful happen" is called
 - (A) Public risk
 - (B) Risk
 - (C) Personal risk
 - (D) Voluntary risk
12. Which of the following does not contribute to reducing risk?
 - (A) Inherent safety concepts
 - (B) Use of redundancy principles
 - (C) Random inspection and auditing
 - (D) Emergency plan
13. In software companies such as Infosys, IBM, wipro etc, the success of a project is mainly based on the ethics of
 - (A) Loyalty
 - (B) Collegiality
 - (C) Respect for authority
 - (D) Team-play
14. Loyalty means
 - (A) Developing personal attention as that of friendship
 - (B) The quality of being true and faithful in one's support
 - (C) To promote the aims of profession
 - (D) Bringing unethical practices of engineers to the proper authority of action
15. Rights of conscientious refusal is the right to
 - (A) Engaging in unethical behaviour
 - (B) Have freedom of speech
 - (C) Warn the public about unusual harms and danger
 - (D) Recognize the principles of enlightened conscience
16. Whistle blowing is defined as
 - (A) Informing the subordinates about some illegal activity in the company
 - (B) Blowing a whistle when a dangerous situation is encounter
 - (C) The engineers to have professional right to disclose a wrong doing outside an organization
 - (D) Alerting relevant person to moral on legal conceptions when relevant persons are those is a position
17. Which one is beneficial to the participating country when foreign countries are doing business in developing countries?
 - (A) Inexpensive labour
 - (B) Availability of natural resources
 - (C) Fresh market for products
 - (D) Jobs with higher pay and greater challenge
18. Which ethics is appropriate for the statement, "while building a dam engineers should take into account the impact on animals living there"?
 - (A) Biocentric ethics
 - (B) Ecoentric ethics
 - (C) Sentient centred ethics
 - (D) Human centered environment ethics

19. Which one of the following moves engineers away from jobs related to weapons development?
- (A) Job with high salary
(B) Patriotic fervor
(C) Arms control regulations
(D) Personal conscience towards violence and destruction it causes
20. The following protects our environment from degradation
- (A) Acid rain
(B) Depletion of ozone layer
(C) Global warming
(D) Sustainable development

PART – B ($5 \times 4 = 20$ Marks)
Answer ANY FIVE Questions

21. Explain the models of professional roles.
22. List the uses of ethical theories.
23. What are the benefits of industry standards?
24. Explain briefly about the concepts of safety and risk.
25. What is confidentiality? What are the management approaches for maintaining confidentiality? Explain.
26. What are conflicts of interest? List the various types of conflicts of interest. Name the methods to avoid conflicts of interest.
27. What is acid rain? What is its impact on eco system?

PART – C ($5 \times 12 = 60$ Marks)
Answer ALL Questions

28. a. What is moral autonomy? Describe about Kohlberg's and Gilligan's theories of moral development in humans. Explain the theories with an example.
- (OR)
- b. What are the theories on virtue ethics on the theory of right action? Explain each one of them in detail.
29. a. Design is an iterative process. Elaborate this statement with relevance to engineering as experimentation.
- (OR)
- b. With necessary diagrams, discuss about the challenger space shuttle disaster. Highlight the factual, conceptual and normative issues involved in the space shuttle disaster.
30. a. What are event tree analysis and fault tree analysis? Explain each one of them with an example application.
- (OR)

b. Write explanatory notes on

- (i) Personal risk
- (ii) Public risk
- (iii) Voluntary risk
- (iv) Valid comment

31. a.i. Define and explain about occupational crimes. Discuss the three cases of occupational crimes.

ii. Explain in detail about unionism and professionalism. What are the arguments in favour and against unionism?

(OR)

b.i. List the elements of intellectual property rights (IPR). State the benefits if IPRs.

ii. What are the differences between bribe and gift? State the ethical reasons for not tolerating bribe.

32. a. What do you understand about Bhopal Gas Tragedy? Explain how safety procedures and standards were violated in Bhopal by Union Carbide company which had led to the disaster.

(OR)

b. Describe in detail how an engineer can act as an expert witness, a good manager and a consulting engineer.

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