Date: **Reg.No:**

FRANCIS XAVIER ENGINEERING COLLEGE
(An Autonomous Institution)
Tirunelveli-627003
Department of Computer Science and Engineering
CONTINUOUS ASSESSMENT TEST -I
Third Year/ Fifth Semester
19ME5501 - PROFESSIONAL ETHICS FOR ENGINEERS

(Regulation 2019)

Time: Three hours **Maximum: 100 Marks**

Answer ALL Questions

PART – A (10 x 2 = 20 Marks)

Q.No	Question	RBT - LEVEL	CO	PI	Marks
1.	Generalize the concept of self-confidence. Self-confidence is an attitude about your skills and abilities. It means we accept and trust ourselves and have a sense of control in our life. We know our strengths and weakness well, and have a positive view of ourselves.	Create	CO1	8.4.2	2
2.	State work ethics. By one's work, one cannot harm others. Any worker cannot escape accountability. Worker has the moral responsibility to see that no other person's right, private or freedom is impaired or transgressed. This is known as Work Ethics	Remember	CO1	9.5.4	2
3.	What is service learning? Service learning tells that one has moral responsibility to increase the desirable effects and to decrease the harmful effects in the community. Any service should increase the desirable result in the society.	Remember	CO1	8.4.2	2
4.	List out some civic virtues that we can implement in our city. • Being a good participant in a system of government	Remember	CO1	8.4.2	2

	• Having personal qualities that help for the effective functioning of the Civil Policies • Obeying or following the political order • Preserving Government's values and principles.				
5.	"Moral Autonomy is needed for life" – Justify. Moral Autonomy means the skill and habit of thinking rationally on ethical issues based on moral concern. So with Moral Autonomy one can live a life with freedom of doing what he thinks is right. So Moral Autonomy is needed for life.	Evaluate	CO2	9.5.4	2
6.	Summarize the drawbacks of Utilitarianism. □ Sometimes what is best for the community as a whole is bad for certain individuals in the community. □ It is often impossible to know in advance which decision will lead to the most good.	Understand	CO2	8.4.2	2
7.	Identify the importance of Self Interest. ➢ Self-interest is being good and acceptable to oneself. ➢ It is pursuing what is good for oneself. ➢ It is very ethical to possess self-interest. ➢ As per utilitarian theory, this interest should provide for the respect of others also.	Apply	CO2	8.4.2	2
8.	Illustrate the various types of Inquiries available. • Normative inquires • Conceptual inquires • Factual inquires	Understand	CO2	9.4.1	2
9.	Give the general features of morally responsible engineers. □ Conscientiousness. □ Comprehensive perspective. □ Autonomy. □ Accountability	Understand	CO3	9.4.1	2

10.	"Engineers are considered as responsible experimenters" – Justify • Any project is carried out in partial ignorance. • The final outcomes of engineering projects, like those of experiments, are generally uncertain. • Effective engineering relies upon knowledge gained about products before and after they leave the factory • knowledge needed for improving current products and creating better ones	Evaluate	CO3	9.4.1	2

PART – B (5 x 13 = 65 Marks)

Q.No	Question	RBT - LEVEL	CO	PI	Marks
11 (a)	Formulate how yoga and meditation are useful for stress management and professional excellence. - Elements of Yoga and meditation(5) - stress management(5) - benefits(3)	Create	CO1	8.3.1	13
	(Or)				
(b)	Discuss about how respect for others play important role in ethics and list some people on how you show respect for them in your life and also Discuss about the art of living peacefully in this critical world. -Respect for others-(7) -Living Peacefully(6)	Create	CO1	9.5.2	13
12 (a)	Summarize the importance of sharing and the impact it produces in the downtrodden people in this society by caring them. – Caring(7) – Sharing(6)	Understand	CO1	8.3.1	13
	(Or)				

(b)	Discuss the importance of courage in detail and emphasize that how it is not only important for soldiers but also for normal living and also explain how honest is important in life? -Honesty(6) -Courage(7)	Create	CO1	8.3.1	13
13(a)	Examine the importance of empathy and differentiate it from sympathy. • Definition (2) • Elements of empathy (4) • Comparison of empathy with sympathy (4) • Benefits of empathy (3)	Analyze	CO1	9.6.1	13
	(Or)				
(b)	"If wealth is lost something is lost, If health is lost something is lost, But if character is lost, everything is lost" - Explain the above quote by giving importance to character. • Introduction (3) • Virtue and character (4) • Nature and Character (4) • Man's will and Character (2)	Understand	CO1	8.4.2	13
14a)	Can you depict the senses of Engineering Ethics in connection with the society we are living in? • Stimulating the moral imagination(2) • Recognizing ethical Issues(2) • Developing Analytical skills(1) • Drawing out a sense of responsibility(1) • Addressing Unclarity, Uncertainity, and disagreement.(1) "Engineering Ethics" – Can you explain how it relates to our profession? Engineering ethics is concerned with(6)	Understand	CO2	8.3.1	76

	i) The study of the moral issues and decisions confronting individuals and organizations engaged in engineering field. ii) The study of related issues about the moral ideas, characters, policies and relationships of people and corporations involved in technological activity.				
	(Or)				
(b)	Assume that you are working in a Multi National corporation in a foreign country and explain the types of Moral issues happen in that work place? • Organization oriented issues. (2) • Clients or customers oriented issues. (2) • Competitors oriented issues. (2) • Law, government and public agencies oriented issues. (2) • Social and environmental oriented issues. (2) • Family oriented issues. (3)	Analyze	CO2	8.4.2	13
15 (a)	Examine the Uses of ethical theories that help the people to live a balanced life. 1. Understanding moral dilemmas.(5) 2. Justifying professional obligations and ideas(5) and 3. Relating ordinary and professional morality(3)	Analyze	CO2	8.4.2	13
	(Or)				
(b)	• Pre-conventional level • conventional level • post-conventional level – Analyse all the above levels and summarize all in connection with the Kohlberg Theory. • Pre-conventional level(4) • Conventional level(4) • Post-conventional level(5).	Understand	CO2	8.4.2	13

PART – C (1 x 15 = 15 marks)

Q.No	Question	RBT - LEVEL	CO	PI	Marks
16 (a)	Explain about Challenger disaster case study and discuss the issues on it. The space shuttle that carried astronauts to the moon had three stage rockets safety point of view. A similar design was suggested in case of Challenger, but it was rejected by the government sincere it was too expensive. The crew had no escape mechanism. The shuttle programme was an experimental and a research undertaking. Challenger astronauts were not informed about the problems such as the field joints. They were not asked for their consent towards unsafe condition. Another cause for the failure of the Challenger was the NASA‟s scientists were unwilling to wait for proper weather condition. Weather was partially responsible for Challenger's disaster. Because, a strong wind shear may result in rupturing of the weak O-rings. The safety concerns were ignored by the management. One engineer said this "A small amount of professional safety effort and the support of the management will cause an enormous quantum safety improvement with little expenses". The important role of the management is for safety first and the schedules second.(5) -Explanation(10)	Evaluate	CO3	8.4.2	15
	(Or)				
(b)	Analyse the concept of engineering as experimentation and also Describe and Compare engineering experiments with standard experiments. • Similarities to Standard Experiments(2) • Comparisons with standard Experiments(2) • Learning from the past(2) • Experimental Control(2) • Informed Consent(2) • Knowledge Gained(5)	Analyze	CO3	9.4.1	15