Date: **Reg.No:**

FRANCIS XAVIER ENGINEERING COLLEGE
(An Autonomous Institution)
Tirunelveli-627003
Department of Computer Science and Engineering
CONTINUOUS ASSESSMENT TEST -II
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	Marks	CO-K Level	PI
1.	What are the functions of code of ethics? The various functions of code of ethics are; 1.Inspiration; 2.Guidance; 3.Support for responsible conduct; 4.Deterring and disciplining unethical professional conduct; 5.Education and promotion of mutual understanding; 6.Contributing to a positive public image of the profession; 7.Protecting the status quo and suppressing dissent within the profession; and 8. Promoting business interests restraint of trade	2	CO3 – K1	8.4.1
2.	Survey the need of the law in engineering. Laws are necessary because, people are not fully responsible by themselves and because of the competitive nature of the free enterprise, which does not encourage moral initiatives. Laws are needed to provide a minimum level of compliance.	2	CO3 – K4	8.4.2
3.	Write short notes on the concept of safety. Safety is expressed frequently in terms of degree and comparisons. We often use words such as 'fairly safe' or 'relatively safe' . The relative safety expressed the safety of a thing in comparison with safety of similar things.	2	CO4– K1	8.4.1
4.	Define "acceptability of risk". According to D.Rowe, "A risk is acceptable when those affected are generally no longer (or not) apprehensive about it".	2	CO4– K1	9.5.4
5.	Examine the job related risks.	2	CO4– K4	9.5.4

	The exposure of risk depends on the person's job and his work place. The nature of the job and the working environment will determine the risk level of a person. For example, people working in the coalmines, oil mines, shipyards, chemical plants, nuclear power plants, etc have more probability of being exposed to the high risk.			
6.	How can risk be reduced? Explain. Risk control can be reduced by any one of the following four methods: risk retension, risk transfer and risk reduction.	2	CO4– K1	9.5.4
7.	Define Globalization. Our lives are increasingly dependent upon the goods/services produced over the world and are influenced by the business from around all the concerns of the world. In general, world has become a global village and have a global economy. The increasing international flow of capital, technology, trade, and people have had the effects of changing the nature of local organizations, governments and people of countries, and have led to social changes and developments. This is the concept of globalizations.	2	CO5– K1	8.4.1
8.	Examine the term "Engineers as Advisors". For an engineer to be an advisor, should study the costs and benefits of all alternatives in objective manner, study economic viability, technical feasibility, operational feasibility and social acceptability, follow honesty, and technical complicity leading to moral complicity.	2	CO5– K4	9.5.1
9.	What is computer ethics? Computer ethics is the study of ethical issues that are associated primarily with computing machines and the computing profession.	2	CO5–K2	8.4.1
10.	Illustrate the Corporate Social Responsibility. ➢ A company has an economic responsibility: it must earn a return for its stockholders within the confines of the law. However, corporate social responsibility means that organizations have also ethical and societal responsibilities that go beyond their economic responsibilities	2	CO5–K2	9.5.1

PART – B (5 x 13 = 65 Marks)

Q.No	Question	Marks	CO	PI
11 (a)	What is the importance of codes of ethics? Give a brief account on four canons of codes of ethics given by an international standard or associates. Codes of Ethics (3) Positive roles of Codes of Ethics (4) Codes and the Experimental Nature of Engineering (4) Limitations of Codes (2)	13	CO3–K2	8.4.1

	(Or)			
(b)	Discuss in detail about balanced outlook emphasis in governing engineering practice. A regulated society (2) Industrial standards (3) Problems with the law in engineering (3) The Proper role of law in engineering (3) Engineering responsibility regarding the law (2)	13	CO3–K2	8.4.2
12 (a)	Can you depict the concept of safety and risk? Factors influencing the perception of risk (2) Voluntarism and Control (3) Effect of Information on Risk Assessments (3) Job-related Risks (3) Magnitude and Proximity (2)	13	CO4–K2	9.5.4
	(Or)			
(b)	"Risk Benefit Analysis" – Can you explain how important the term is and the different analytical methods used when testing is inappropriate. Definition (3) Conceptual difficulties in Risk-Benefit Analysis (5) Ethical Implications on Risk-Benefit Analysis (5)	13	CO4–K2	9.5.4
13(a)	"Employee rights" and "Professional rights" – Explain the two terms that how these are being practiced in our country. Employee rights(7) Professional rights(6)	13	CO4–K2	8.4.1
	(Or)			
(b)	Discuss about Collective Bargaining. Explain the role of collective bargaining in workplace rights and responsibilities. What is meant by Collective Bargaining? (3) Process of Collective Bargaining (4) Unionism and Professionalism (4) Arguments Over Unions (2)	13	CO4–K2	9.4.2
14a)	Assume a Multinational Software Company and explain how the Computer Ethics can be practiced there? Defintion (2) Categories of Computer Ethics Problems (4) Computers as the object of unethical acts (4) Autonomous Computers (3)	13	CO5–K4	8.4.1
	(Or)			
(b)	What does Environmental Ethics deal with? Discuss the holistic approaches of Environmental Ethics. Write a note on "Acid Rain" Definition(2) Types of concern for Environment (3) Engineers concern for Environment (3)	13	CO5–K2	8.4.1

	What does professional codes of ethics say about the environment? (5)			
15 (a)	Discuss on Engineer's involvement in weapon's development and analyse the problems faced by the Defence Industry. Definition (3) Role of Engineers in defense industry. (5) Engineers involvement in weapon work. (5)	13	CO5–K2	9.5.4
	(Or)			
(b)	What are the reasons for selecting Engineers as Managers? How to maintain the ethical climate in organizations? List the principles for conflict resolution and how to solve the conflicts through the managerial approach. Why do most of the Engineers move into Managerial Roles? (2) Managers as Professions (3) Impact of Transition on Ethical Issues (3) Responsiblites of Engineers-Managers (5)	13	CO5 – K2	9.5.1

PART – C (1 x 15 = 15 marks)

Q.No	Question	MARKS	CO	PI
16 (a)	Summarize the Bhopal and Chernobyl Case study issues and the impact it produces in this society. The Chernobyl disaster (2) The accident (2) Immediate Impact (3) Chernobyl Accident: Simplified sequence of events (2) Environmental and health effects (2) Chernobyl today (2) What has been gained from the Chernobyl disaster(2)	15	CO4– K4	9.5.4
	(Or)			
(b)	Assume a Multinational Software Company and explain how the Occupational crime takes place there and also about the conflicts of interest? • Occupational crime(8) • conflicts of interest(7)	15	CO4– K4	9.5.1