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Question Paper Code: 91508

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Seventh Semester

Electronics and Communication Engineering

GE 2025/GE 606/10177 GE 005/10144 CSE 59 — PROFESSIONAL ETHICS IN ENGINEERING/PROFESSIONAL ETHICS AND HUMAN VALUES

(Common to Fifth Semester – Textile Technology/Textile Technology (Fashion Technology) and Biotechnology)

(Also common to Sixth Semester – Civil Engineering, Automobile Engineering and Electrical and Electronics Engineering)

(Regulation 2008/2010)

(Common to PTGE 2025/10144 CSE 59/10177 GE 005 – Professional Ethics in Engineering for B.E. (Part-Time) Fifth Semester – Civil Engineering and Electrical and Electronics Engineering, Seventh Semester – CSE/ECE/Mechanical – Regulation 2009/2010)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

PART A — $(10 \times 2 = 20 \text{ marks})$

- 1. Define Moral Autonomy.
- 2. What are the models of professional roles?
- 3. What are the limitations of code of ethics?
- 4. What are the features of Engineering Experimentation?
- 5. Define the term Risk.
- 6. List the methods that can be applied when testing is inappropriate.
- 7. What is the difference between bribe and gift?
- 8. What does whistle blowing mean?
- 9. What are the International rights listed by Donaldson?
- 10. Explain the meaning of 'moral leadership'.

PART B — $(5 \times 16 = 80 \text{ marks})$

11.	(a)	(i)	How did Gilligan view the three levels of moral development initiated by Kohlberg? (12)						
		(ii)	Discuss three types of inquiry. (4) Or						
	(b)	(i)	Discuss the different models of professional roles. (8)						
		(ii)	Explain the skills needed to handle problems about moral issues in engineering ethics. (8)						
12.	(a)	(i)	Discuss on the roles played by the codes of ethics set by professional societies. (10)						
		(ii)	Compare and contrast engineering experiments with standard experiments. (6)						
	(b)	(i)	Explain in detail the Challenger accident. What are the ethical problems involved in this? (12)						
		(ii)	Discuss Research Ethics. (4)						
13.	(a)	(i)	Discuss the concept in risk-benefit analysis. (8)						
		(ii)	Explain in detail the effect of information on risk assessment with an example. (8)						
			\mathbf{Or}						
	(b)	Disc	uss the concept of safety exists in the Chernobyl Case Studies. (16)						
14.	(a)	(i)	What is Intellectual Property Rights? Explain various elements of IPR in detail. (10)						
		(ii)	Discuss human rights and professional rights in an engineering field. (6)						
	m Or								
	(b)	(i)	Define collective bargaining. Explain the role of collective bargaining in workplace rights and responsibilities. (12)						
		(ii)	Discuss on collegiality and loyalty. (4)						
15.	(a)	(i)	Discuss the ethical issues related to computer ethics and internet. (10)						
		(ii)	Write briefly on environmental ethics and weapon development. (6) Or						
	(b)	(i)	Explain the role of engineers as managers. (8)						
	(~)	(ii)	Write briefly Engineers used as Expert Witness. (8)						