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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. Or . (4)   |
| -           | (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)  |
|             |            | •    | $\mathbf{Or}$  |
|             | (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)  |
|             | •<br>·     | (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)  |
|             |            |      | $\mathbf{Or}$  |
|             | (b)        | (i)  | Define collective bargaining. Explain the role of collective bargaining in workplace rights and responsibilities. (12) |
| •           |            | (ii) | Discuss on collegiality and loyalty. (4)   |
| <b>15</b> . | (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)   |
| •           | · <b>-</b> | (ii) | Write briefly Engineers used as Expert Witness. (8)  |