Reg. No. :

Question Paper Code : 51503

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Seventh Semester

Electronics and Communication Engineering

GE 2025 / GE 606 / 10177 GE 005 — 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 – Professional Ethics in Engineering for B.E. (Part-Time) Fifth Semester – Civil Engineering and Electrical and Electronics Engineering, Seventh Semester – ECE – Regulation 2009)

Time : Three hours

Maximum: 100 marks

Answer ALL questions.

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

1. Define Engineering Ethics.

- 2. State the uses of ethical theories.
- 3. What is meant by engineering as experimentation?
- 4. State the importance of ethical codes.
- 5. State the industrial definition on safety.

6. What is meant by Disaster?

7. Define the term Collective Bargaining.

- 8. What is meant by Occupational Crime?
- 9. What are the normal issues that may arise in Multinational Corporation?
- 10. Differentiate eye witness and expert witness in the legal system.

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

(a) What are the general types of inquiries involved in engineering inspection? Explain in detail the specific virtues of professional responsibility. (16)

Or

- (b) (i) Briefly explain the three main levels of moral developments, developed by Kohlberg. (8)
 - (ii) Explain the vital role of consensus and controversy while considering moral autonomy in engineering ethics.
 (8)
- 12. (a) (i) Briefly discuss the space shuttle Challenger accident. What are the ethical problems involved in this? (10)
 - (ii) Discuss about Research ethics.

Or

- (b) (i) What is meant by informal consent when bringing an experimental product to the market? (6)
 - (ii) How the ethical codes provide discipline among the engineers? (10)
- 13. (a) (i) Discuss the notion of safe exit, using evacuation plans for communities near nuclear plants or chemical process plants. (8)
 - (ii) State the necessity of risk benefit analysis.

Or

(b) Discuss the causes of Bhopal disaster. Explain the responsibility of engineers in the design of product in the design stage itself before the event of an accident.
(16)

(6)

(8)

14. (a) Discuss human rights, professional rights and employee rights in an engineering field. (16)

Or

- (b) (i) What are the main elements of IPR? Give examples of discrimination. (8)
 - (ii) Discuss about Collegiality and Loyalty.
- 15. (a) Discuss the following in detail :
 - (i) Business ethics
 - (ii) Environmental Ethics
 - (iii) Computer Ethics
 - (iv) Weapons Development.

$(4 \times 4 = 16)$

(8)

• Or

- (b) Discuss the following in detail :
 - (i) Engineers as managers
 - (ii) Engineers as advisors
 - (iii) Engineers as consultants
 - (iv) Moral leadership.

 $(4 \times 4 = 16)$