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Question Paper Code : 60750

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2026.

Sixth/Seventh/Eighth Semester

Civil Engineering

GE8076 — PROFESSIONAL ETHICS AND ENGINEERING

(Common to Aeronautical Engineering/Aerospace Engineering/Agriculture Engineering/Automobile Engineering/Biomedical Engineering/Computer Science and Engineering/Computer and Communication Engineering/Electrical and Electronics Engineering/Electronics and Communication Engineering/Electronics and Instrumentation Engineering/Electronics and Telecommunication Engineering/Environmental Engineering/Geoinformatics Engineering/Industrial Engineering /Industrial Engineering and Management/Instrumentation and Control Engineering/Manufacturing Engineering/Marine Engineering/Material Science and Engineering/Mechanical Engineering /Mechanical Engineering (Sandwich)/Mechanical and Automation Engineering/Mechatronics Engineering/Medical Electronics/Petrochemical Engineering/Production Engineering/Robotics and Automation/Safety and Fire Engineering/Biotechnology/Chemical Engineering/Chemical and Electrochemical Engineering/Fashion Technology/Food Technology/Handloom and Textile Technology/Information Technology/Petrochemical Technology/Petroleum Engineering/Pharmaceutical Technology/Plastic Technology/Polymer Technology/Textile Chemistry/Textile Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define: Integrity.
2. What is empathy?
3. What are the types of inquiry?
4. State: Kohlberg's Theory.
5. How is Engineering considered a Social Experimentation?

6. What are Codes of Ethics?
7. Define: Safety and risk.
8. What is occupational crime?
9. State the need for environmental ethics.
10. Who are Consulting Engineers

PART B — (5 × 13 = 65 marks)

11. (a) Discuss the concepts of morals, values, and ethics in detail.

Or

- (b) Outline the importance of Yoga and Meditation for Professional Excellence and Stress Management.

12. (a) Explain in detail the variety of moral issues in engineering.

Or

- (b) Explain Gilligan's Theory in detail.

13. (a) Bring out the significance of engineers as responsible experimenters in detail.

Or

- (b) Provide a detailed overview of the laws pertaining to the codes of ethics.

14. (a) Illustrate in detail about the Assessment of Safety and Risk.

Or

- (b) Describe in detail about the Intellectual Property Rights (IPR).

15. (a) Elucidate the ethical issues in Weapons Development in detail.

Or

- (b) Explain in detail about Corporate Social Responsibility with suitable illustrations.

PART C — (1 × 15 = 15 marks)

16. (a) Industrial chemicals are produced on a large scale by a conglomerate. It suggested establishing a second unit. Due to its negative impact on the environment, many states rejected this proposal. But one state government accepted to the request and permitted the unit close to a city, brushing aside all opposition. Further, the unit was set up 10 years ago and was in full swing till recently. The pollution caused by the industrial

effluents was affecting the land, water, and crops in the area. It was also causing serious health problems to human beings and animals. This gave rise to a series of agitations demanding the closure of the plant. In a recent agitation, thousands of people took part, creating a law-and-order problem necessitating stern police action. Following the public outcry, the State government ordered the closure of the factory. The closure of the factor resulted in the unemployment of not only those workers who were engaged in the factory but also those who were working in the ancillary units. It also a very badly affected those industries that depended on the chemicals a manufactured by it.

- (i) Point out the ethical issues involved in the above case. (8)
- (ii) As a senior officer entrusted with the responsibility of handling these issues, how are you going to address them? (7)

Or

- (b) Ranbir is the Chief Executive Officer of a company. The Company has been growing and has recruited quite a few specialists recently. The functional heads in the company have to meet with their staff in an open meeting every two months. Ranbir detested these meetings. It was open to everyone in the office. The staff came up with a long list of trivial and tiresome complaints and grievances. They repeated the same things and spoke at length. Even when the staff knew of the constraints, they went on with their complaints. They wanted more space for the lounge, for rest rooms and the crèche. Ranbir pointed out to lack of space, and yet the staff continued to complain. Ranbir cultivated a habit of sitting through the meeting with a cheerful face, but with his mind switched off from the proceedings. The meeting became a tiresome ritual he had to get through.

Due to these issues, many employees have left the company, and it is further hampering the Business of the company.

- (i) List out the ethical issues involved in the above case. (8)
- (ii) In Ranbir's situation, what action would you have taken and why? (7)

