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Question Paper Code : 20693

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

Sixth/Seventh/Eighth Semester

Aeronautical Engineering

GE 8076 — PROFESSIONAL ETHICS IN ENGINEERING

(Common to Aerospace Engineering/Agriculture Engineering/Automobile Engineering/Biomedical Engineering/Civil 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/Bio Technology/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 Human Value.
2. What is Service learning?
3. Define Engineering Ethics.
4. Differentiate between Morals and Ethics.
5. What is code of Ethics?

6. Give note on the senses of responsibility for engineers.
7. What is meant by conflict of interest?
8. Give a brief note on types of risk.
9. Brief on the importance of Environmental ethics.
10. State the role of Corporate Social Responsibility.

PART B — (5 × 13 = 65 marks)

11. (a) Enumerate on the importance and characteristics of service learning.

Or

- (b) (i) State and explain the elements and benefits of Empathy. (8)
- (ii) Compare Empathy with Sympathy. (5)

12. (a) Discuss any two theories of Moral Autonomy.

Or

- (b) Give a detail note on models of Professional engineers.

13. (a) Discuss the importance of duty ethics and virtue in Engineering profession.

Or

- (b) Compare and contrast Engineering Experiment with Standard experiment with suitable example.

14. (a) Explain how elements of intellectual property rights benefits people.

Or

- (b) (i) Explain how the risks are reduced. (7)
- (ii) Explain the concept of Risk-Benefit Analysis. (6)

15. (a) Justify engineers as expert witness and advisors with suitable examples.

Or

- (b) Enumerate on the moral and ethical issues involved in use of computers.

PART C — (1 × 15 = 15 marks)

16. (a) Analyze the significance of Yoga and meditation for professional excellence and stress management.

Or

- (b) Detail on the scope and importance of Professional Ethics in Engineering.