Question Paper Code: UF708

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Professional Elective

Computer Science Engineering

21CSV708-ETHICS AND AI

(Common to IT & CSD Engineering branches)

(Regulation 2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. How does AI Affect Human Morality?   CO1 U

2. How does AI impact trust in various contexts?   CO1 U

3. Define international ethical initiatives in AI.   CO1 U

4. What are the examples of ethical dilemmas that arise in international context?   CO1 U

5. List out the activities and tasks Model process for Addressing Ethical concerns during system design.   CO1 U

6. What are different types of bias in AI?   CO1 U

7. Define Robot? List out the types of Robot?   CO1 U

8. What are the ethical issues in ICT?   CO1 U

9. What is the challenges and opportunities of AI?   CO1 U

10. How can data analytics enhance decision-making in industries?   CO1 U

PART – B (5 x 16= 80 Marks)

11. (a) Explain how the legal systems handle ethical challenges posed by   CO1 U   (16)
    AI.

Or

   (b) How do tort law and criminal law address the impacts of artificial   CO1 U   (16)
    intelligence, and what are the key differences in their approaches to
    handling AI-related issues?

12. (a) Assess the ethical concerns in the deployment of AI in healthcare, considering both benefits and risks.   CO1 U   (16)

Or

(b) What are the key issues and challenges associated with the use of robots in healthcare?   CO1 U   (16)

13. (a) What are the key principles and requirements outlined in the ontological standard for Ethically Driven Robotics and Automation Systems?   CO1 U   (16)

Or

(b) Examine the process for ensuring data privacy in IEEE standard P7002.   CO1 U   (16)

14. (a) Discuss in detail about Ethics in science and Technology   CO1 U   (16)

Or

(b) How do different moral theories (e.g., utilitarianism, deontology, and virtue ethics) approach ethical dilemmas in technology development?   CO1 U   (16)

15. (a) Write short notes on for the following: CO1 U   (16)
(i) Challenges in Artificial Intelligence.
(ii) Opportunities in Artificial Intelligence.

Or

(b) What role does decision-making play in the implementation of new technologies in industrial operations?   CO1 U   (16)

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