

Roll.No.

25UAICT3005

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.Sc.Cs with AI. - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - III

25UAICT3005 - Data Ethics and Privacy

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Explain the principles of Utilitarianism, Deontology, and Virtue Ethics as applied to data science.
2. Illustrate how Responsible AI addresses ethical issues in automation and decision making.
3. Analyse the differences between GDPR, CCPA, and PDPB in terms of user consent and data protection rights
4. Apply ethical principles to assess a case where government surveillance conflicts with individual privacy.
5. Describe how bias and fairness issues arise in machine learning algorithms with a suitable example.
6. Classify the different privacy-preserving techniques used in data anonymization and secure sharing.
7. Explain how encryption techniques help in mitigating cyber risks and ensuring data integrity
8. Recommend strategies to develop an ethical code of conduct for data professionals in organizations.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Discuss in detail the ethical issues in Big Data and Cloud Computing, and explain how ethical theories help resolve them.
10. Evaluate the legal and philosophical perspectives of the Right to Privacy and its impact on data collection by organizations.
11. Critically analyze a real-world AI ethics failure (e.g., facial recognition bias or credit scoring discrimination) and justify the corrective ethical framework to apply.

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12. Examine the ethical implications of data breaches and propose privacy-preserving solutions through encryption and anonymization techniques.
13. Evaluate the future trends in data ethics and governance with reference to emerging technologies like IoT, Blockchain, and Quantum Computing
