



# Indraprastha College for Women

## University of Delhi

|                    |                 |
|--------------------|-----------------|
| Course Name:       | B. A. (Program) |
| Paper Title:       | Data Privacy    |
| Unique Paper Code: | 2343010010      |
| Semester:          | V               |
| Faculty(s):        | Seema Jangra    |
| Year:              | 2026            |

| Unit No. | Learning Objective                                     | Lecture No. | Topics to be Covered                               |
|----------|--------------------------------------------------------|-------------|----------------------------------------------------|
| II       | Data Privacy Attacks, Cryptography and Data Protection | 1           | Detailed Study of Data Privacy Techniques (Part 1) |
|          |                                                        | 2           | Detailed Study of Data Privacy Techniques (Part 2) |
|          |                                                        | 3           | Introduction to Data Privacy Attacks               |
|          |                                                        | 4           | Types of Data Privacy Attacks (Part 1)             |
|          |                                                        | 5           | Types of Data Privacy Attacks (Part 2)             |
|          |                                                        | 6           | Introduction to Cryptography                       |
|          |                                                        | 7           | Introduction to Data Protection                    |
|          |                                                        | 8           | Requirement of Cryptography and Data Protection    |
|          |                                                        | 9           | Introduction to Type of Attacks                    |
|          |                                                        | 10          | Data Breaches on Data Privacy                      |
|          |                                                        | 11          | Type of Attacks on Data Privacy                    |
|          |                                                        | 12          | Data Breaches on Data Privacy                      |
|          |                                                        | 13          | Impact of Data Breaches / Attacks                  |
|          |                                                        | 14          | Symmetric encryption                               |
|          |                                                        | 15          | Asymmetric encryption                              |
|          |                                                        | 16          | Introduction to Hashing                            |
|          |                                                        | 17          | Hashing and its Types                              |
|          |                                                        | 18          | Introduction to digital signatures                 |
|          |                                                        | 19          | Revision                                           |

| Unit          | TOPICS                                                                                                                                                                                                                                                                                                               |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I             | Introduction to Data Privacy and Privacy Regulations: Notion of data privacy, Historical context of data privacy, Types of sensitive data, Privacy laws and regulations.                                                                                                                                             |
| II            | Data Privacy Attacks, Cryptography and Data Protection: Type of Attacks/ Data Breaches on Data Privacy, Impact of Data Breaches / Attacks, Introduction to cryptography, Symmetric and asymmetric encryption, Hashing and digital signatures.                                                                        |
| III           | Data Collection, Use and Reuse: Harms Associated with Data collections, use and reuse, Introduction to data anonymization, Data Anonymization Techniques for anonymizing data, Challenges in anonymizing data                                                                                                        |
| IV            | Ethical considerations in Data Privacy: Privacy and Surveillance, Ethics of Data Collection and Use, Bias and discrimination in data analysis                                                                                                                                                                        |
| <b>S. No.</b> | <b>Name of Authors/Books/Publishers</b>                                                                                                                                                                                                                                                                              |
| 1.            | 1. Ronald Leenes, Rosamunde van Brakel, and Serge Gutwirth: Data Protection and Privacy: The Age of Intelligent Machines, Hart Publishing, 2017.                                                                                                                                                                     |
| 2.            | Naavi: Personal Data Protection Act of India (PDPA 2020): Be Aware, Be Ready and Be Compliant, Notion Press, 2020.                                                                                                                                                                                                   |
| 3.            | Ravinder Kumar Gaurav Goyal, The Right to Privacy in India: Concept and Evolution, Publisher: Lightning Source, 2016                                                                                                                                                                                                 |
|               | <b>Additional References</b><br>1. <a href="https://onlinecourses.nptel.ac.in/noc22_cs37/preview">https://onlinecourses.nptel.ac.in/noc22_cs37/preview</a><br>2. <a href="https://www.coursera.org/learn/northeastern-data-privacy/home/info">https://www.coursera.org/learn/northeastern-data-privacy/home/info</a> |

| Paper Components |                |                 |                  |
|------------------|----------------|-----------------|------------------|
| Credits          | Lecture<br>(L) | Tutorial<br>(T) | Practical<br>(P) |
| 6                | 4              | 0               | 2                |

| Assessment Scheme |                                        |                |             |
|-------------------|----------------------------------------|----------------|-------------|
| S. No.            | Component                              | Marking Scheme | Total Marks |
| 1                 | Internal Assessment                    |                | 30          |
|                   | ● Assignment/Quiz/Project/Presentation | 12             |             |
|                   | ● Class Test                           | 12             |             |
|                   | ● Attendance                           | 6              |             |
| 2.                | Practical                              |                | 50          |
|                   | ● Continuous Assessment                | 20             |             |
|                   | ● End Term Written/Practical Exam      | 20             |             |
|                   | ● Viva                                 | 10             |             |
| 3.                | End Semester Examination               |                | 90          |