

RAN-2508000605040010

T.Y.B.Com. (Data Science) (Sem. - V) Examination March - 2026
Data Ethics And Privacy (Minor)

[Total Marks: 50

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book.	Seat No.: <table border="1" style="width: 100%; height: 30px; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> </table> Student's Signature						

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|-----------------|---|-----------|
| Q. 1. | Write the Answer in Short (Any 5) | 10 |
| | <ol style="list-style-type: none"> 1. Define data ethics. 2. What is sampling bias? 3. What is transparency in data practices? 4. What is the GDPR and why is it important? 5. Define algorithmic bias. 6. What is informed consent in data collection? 7. State one ethical responsibility after a data breach. | |
| Q. 2.(A) | Discuss the importance of data ethics in modern data science. | 07 |
| Q. 2.(B) | Explain the different types of privacy and discuss how digital technologies challenge each type. | 07 |
| OR | | |
| Q. 2.(A) | Compare and contrast utilitarian, rights-based, and justice-based ethical frameworks and apply each to a data privacy problem. | 07 |
| Q. 2.(B) | Critically analyze the role of informed consent in large-scale data collection (e.g., social platforms). | 07 |
| Q. 3.(A) | Compare GDPR, CCPA, and HIPAA—scope, rights provided, and enforcement differences. | 07 |
| Q. 3.(B) | Explain the lifecycle of a data breach, its ethical consequences, and best-practice organizational responses | 07 |
| OR | | |
| Q. 3.(A) | Discuss the importance of ethical compliance in organizations and the role of governance structures in ensuring it. | 07 |
| Q. 3.(B) | Describe technical and policy-level approaches to secure ethically sensitive datasets (e.g., health records). | 07 |

Q. 4. Write a short Note (Any 3)

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1. Data ethics —one-paragraph definition.
 2. Sampling bias —causes and quick fixes.
 3. Informed consent — core elements.
 4. Algorithmic bias —detection techniques.
 5. Ethical data storage —retention & minimisation.
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