

CLASS 9 – ARTIFICIAL INTELLIGENCE

ASSIGNMENT – UNIT 2 (Data Literacy)

Unit 2.1 – Basics of Data Literacy

- Q1. What do you mean by Data Literacy?
- Q2. Draw Data Pyramid. Explain its different parts.
- Q3. Why is Data Literacy important?
- Q4. What are the different levels of awareness of the Data Literacy process framework?
- Q5. Define Data Privacy and Data Security. Why is it important?
- Q6. How is Data Privacy different from Data Security?
- Q7. What is Cybersecurity? What are the best practices for cybersecurity?

Unit 2.2 – Acquiring Data, Processing, and Interpreting Data

- Q8. Explain different types of data.
- Q9. Differentiate between Qualitative data and Quantitative data?
- Q10. Name different AI domains. Explain the type of data used in each domain.
- Q11. What do you understand by the terms – Data discovery, Data augmentation, and Data Generation w.r.t Data Acquisition?
- Q12. Differentiate between Primary Data source and Secondary Data source.
- Q13. What is Good data and Bad data?
- Q14. What is web scraping? Is it legal or illegal?
- Q15. What are the Ethical concerns while acquiring data?
- Q16. What are the three primary factors that determine the usability of data?
- Q17. Define Data Features. What are dependent and independent features?
- Q18. What do you understand by the terms-
Acquire Data, Data Processing, Data Interpretation, Data analysis, Data Presentation.
- Q19. What are the two methods of Data Interpretation?
- Q20. What is trend analysis? Is it possible to see trends on the Internet? How?
- Q21. 5 Steps to Qualitative Data Analysis are-

1. Collect Data
2. Organize
3. Set a code to the Data Collected
4. Analyse your data
5. Reporting

4 Steps to Quantitative Data Analysis are

1. Relate measurement scales with variables
2. Connect descriptive statistics with data
3. Decide a measurement scale
4. Represent data in an appropriate format

How is Qualitative data interpretation different from Quantitative data interpretation?

- Q22. Name the different Data Collection methods for Qualitative data and Quantitative data.
- Q23. Name the three types of Data interpretation methods that help in Informed Decision-making, Reduced costs, and Identifying needs.
- Q24. If we have a lot of data that is not clean, is it good for AI?

Unit 2.3 – Project Interactive Data Dashboard & Presentation

- Q25. Name any two Data Visualization tools used in AI.
- Q26. At which stage of the AI project cycle does Tableau software prove useful?
- Q27. Name any five graphs that can be made using Tableau software.
- Q28. What is the importance of data visualization?

ASSIGNMENT – UNIT 3 (Math for AI)

Unit 3.1 – Importance of Math for AI

- Q1. How are Math and AI related?
- Q2. How is Maths (Statistics, Calculus, Linear Algebra, Probability) useful for Artificial Intelligence?