

Tutorial 1 – week 1 – Introduction to Databases

1. What do you understand by ‘Database Systems’?
2. What is meant by Database Management Systems?
3. What is the basic difference between a ‘Database System’ and a ‘Database Management System’?
4. What is a ‘database’?
5. Differentiate between ‘centralised’ and ‘distributed’ databases.
6. What are homogenous and heterogeneous databases?
7. List the main functions of a DBMS.
8. What are the main disadvantages of the manual System?
9. What are the main disadvantages of file processing systems?
10. What are the benefits of the Database Systems?
11. How do you compare the ‘Hierarchical’ Model with the ‘Network’ model? Illustrate your answer with appropriate diagrams.
12. Describe the ‘three-tier architecture’ as proposed by the ANSI/SPARC Model. Support your answer with appropriate diagrams.
13. Explain fully the term ‘Mappings’ as applied to the ‘three-tier architecture’.
14. Explain what is meant by the term ‘data independence’. What are the two types of data independence you know? Briefly explain each of these, supporting your answer with appropriate examples.
15. Database languages can be broadly grouped into six main categories. What are these? Briefly describe each of these.

Lecturer: Mr Ajit Gopee May 2024 1