B.Sc- III year (Annual Pattern)2019-20 Important Questions

Subject- Computer Science Paper-I (Database Management System)

1. Explain the purpose and importance of database management system.
2. Define various data models with their characteristics and example.
3. What are the advantages and disadvantages of database management system?
4. Draw a neat and labelled diagram of database management system.
5. Explain with examples- DDL, DML and DCL.
6. What is Entity-Relationship model? Define its features.
7. Explain the terms- entity, domain, tuple, attribute, relationship, and schema.
8. What are keys? Explain different types of keys used in DBMS.
9. Explain integrity rules and its types.
10. What is Join-operation? Define various types of joins.
11. Differentiate between Generalization and Specialization.
12. What do you mean by relational algebra? Explain its characteristics.
13. What are different types of set-operations? Explain.
14. Define the term “Functional Dependency” and its features.
15. Explain Normalization and its different normal forms.
16. What is a universal relation? Explain its characteristics.
17. Explain Codd’s rules of DBMS.
18. Explain Hashing and its types.
19. Explain Indexing.
20. What is Hash-Function? Define.

Note:- For the solution of above questions, kindly refer to the notes given by me in the class-room.

B.Sc- III year (Annual Pattern)2019-20 Important Questions

Subject- Computer Science Paper-II (Operating System Concepts)

1. Define operating system and its services.
2. Differentiate between multi-programming and multi-tasking operating system.
3. Explain different types of operating system with their features.
4. What are system calls? Explain their working.
5. Explain Real-Time operating system and its types with example.
6. Operating system is the backbone of any electronic device. Comment.
7. What is a process? Explain states of a process with diagram.
8. Define process control block and its components with a diagram.
9. What is scheduling algorithm? Why is it needed?
10. Explain FCFS and SJF scheduling with features.
11. Differentiate between round-robin and priority scheduling.
12. What do you mean by memory management?
13. Explain the relation between logical and physical address space.
14. Define contiguous memory allocation and its types.
15. Explain the following:- swapping, relocation, compaction, authentication.
16. Explain the concept of paging with the help of a diagram.
17. What is segmentation? Define its working principle.
18. Explain interprocess communication.
19. Define deadlock and its categories.
20. Explain different page replacement algorithms.
21. What are disk scheduling algorithms? Explain.
22. Write a short note on security and protection.
23. What is Linux operating system? Explain its features.
24. Explain linux file system and kernel administration.
25. Define:- Vi editor, Gnome interface, linux shells.

Note:- For the solution of above questions, kindly refer to the notes given by me in the class-room.
