

HIMALAYAN UNIVERSITY

B.Sc IT 2nd Semester

Assignment: Database Management System

Part A

Q1: Give the introduction of database interfaces. What are its types?

Q2: What is an ER-diagram? Construct an ER diagram by taking a suitable example.

Q3: What is relational model? How the data and relationships are represented in tables in relational models?

Q4: What are different types of normalization? Also explain the difference between BCNF and 3NF briefly.

Q5: Explain why 4NF is more desirable than BCNF with the help of an example.

Part B

Q1: Discuss nested relations in object relational databases. Why they are called complex data types?

Q2: What is Data Mining? Explain Data Mining Techniques. Compare between Data Mining and Data Warehousing.

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Assignment: Data Structure and Algorithms

Part A

Q1: Define Stack and queue data structure.

Q2: Explain the list representation technique.

Q3: Explain the Dynamic storage allocation technique.

Q4: Explain Depth first search.

Q5: what do you mean by binary tree. explain with example.

PART- B

Q1: Explain Bubble Sort with an example. Write a program in C for bubble sorting.

Q2: Explain insertion sort with an example. Write a program in C for insertion sorting.

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Assignment: Data Structure and Algorithms

Part A

Q1: What is communication management process?

Q2: Why is communication important?

Q3: What are the principles of effective communication?

Q4: What are the factors of effective communication?

Q5: What are the methods of communication?

PART-B

Q1: What are the 7 C's of communication?

Q2: What are 5 barriers to effective communication?

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Assignment: Operating System

Part A

Q1.) Discuss the role of operating system

Q2.) Explain various directory structure used in operating system for storing files give its merits and demerits?

Q:3) How Files System are organized with UNIX ? Explain with an example .

Q 4) what is a Deadlock? How it is detected? What are the necessary conditions for a deadlock to occur?

Q 5). A variable portion memory system has at some point in time the following box sizes in the order 20k,15k,40k,60k,10k,25k, a new process is to be loaded which block will be filled using best fit, first fit, worst fit respectively.

PART -B

Q1). What are the mechanisms to evaluate an algorithm related to CPU scheduling? Discuss any one of them. Discuss the structure of directory and its implementation in detail.

Q2). What are the various functions of KERNEL of UNIX? What is the critical section problem? What are its various solutions?