Chapters and Topics you must read and understand for midterm and will also =  
be included in preparing for final exam.  
  
Chapter 1 all topics pages 3-28  
  
Chapter 2 all topics pages 31-55. You must know DBMS component modules on p=  
age 43, database system utilities on page 45, classification of database ma=  
nagement systems in section 2.6. Section 2.5 is too general but hard to mak=  
e any questions but please read to learn about various architectures and ho=  
w DBMS, OS, and hardware and communication are layered.  
  
Chapter3 pages 59-68. main phases of database design, different types of at=  
tributes for an entity. You do not need to worry about ER diagram and on pa=  
ge 64.  
  
Chapter 5 all topics pages 149-170  
  
Chapter 6 all topics pages 177-201, how to covert English to SQL query and =  
vice versa  
  
Chapter 7 all topics pages 207-221. There exist and for all semantics. Aggr=  
egate functions and grouping. Queries in exam will not be very complicated =  
but a good understanding of SQL features is needed.  
  
Chapter8 all topics about relational algebra on pages 239-259, query trees =  
and optimization by rearranging operators (move join at higher level in tre=  
e to do them at the end). Outer joins, left outer join, right outer join.  =  
Some familiarity with relational calculus. s in section 8.6.1, page 269. Co=  
nverting a relational algebra to SQL or relational calculus as section 8.6.=  
4 ( briefly). Safe expression 8.6.8 on page 276. Wat is domain calculus and=  
 its advantages.  
  
Chapter 16 all topics pages 541-588. Disk storage and parameters ( also see=  
 appendix B on page 1167-1169, buffer management and replacement, fixed len=  
gth, variable length recors, hashing on pages 572-581, Parallel disks RAID =  
( briefly), questions such as 16.34-16.37 and in assignment  
  
Chapter 17 various types of indexes, example 1 and 2 on page 605-606, multi=  
-level indexes in section 17.2 on page 613, example 4 on page 614, general =  
knowledge of B-Trees and B+ Trees, partioned hashing and grid files ( pages=  
 632-633) and bitmap indexes on page 634-635, tuning indexes page 640, sect=  
ion 17.7 physical databse design and factors that influence it on page 643-=  
646 ( easy to read but very useful  
  
Chapter 14 pages 459-461, informal design guidelines section 14.1 on page 4=  
61, insertion, deletion, modification anomalies, section 14.1.5 and functio=  
nal dependecies and eventually normalization ( first, second third normal f=  
orm of relations). Plan to cover them soon upto page 487