1. Answer the question in short:  
(1) Convert \((100011101)_2 = (?)_8 = (?)_{10}\)  
(2) What do you mean by database? Define table.  
(3) What is significance of primary key and foreign key?  
(4) List the uses of ALTER TABLE command.  
(5) Write syntax and example for creating view.

2. Write answers for the following: (any two)  
(a) Explain various number systems. (Binary, Octal, hexadecimal)  
(OR)  
(a) Define Operating System. Explain types of O.S. in detail.  
(b) Write short note on FAT32 and NTFS.

3. Write answers for the following:  
(a) Explain data types of MS-ACCESS in detail.  
(OR)  
(a) Explain various keys available on dbms giving suitable example on table.  
(b) Explain physical and logical organization of database.  
(c) Explain drawbacks of file processing system.
Consider following tables write queries for the following: (any seven)

**Book** _mast_  
(book_no, book_name, author, publisher, no_of_copy)

**Stud** _mast_  
(lib_no, stud_name, book_no, no_of_copy)

**Transaction**  
(trans_no, trans_type, lib_no, book_no, no_of_copy, trans_date)

Give transaction type = 'I' for issue and 'R' for return.

1. Display all student name who have more than two books.
2. Display all books whose publisher is "Pearson Education".
3. Display all students who have book title “ANC1 C”.
4. Delete records from stud_mast for all students who have “Oracle” book.
5. Change transaction type to 'R' (Return) for all transaction whose transaction type is 'I' (Issue) and book_name = “Let us C”.
6. Display the name of book which are issued maximum time.
7. Display the name of all book issued to student “Nirav”.
8. Display all books with no. of copies.