**(C) Queries**

1. **Books published after 2010**:
2. **Members with last name starting with 'S'**:
3. **Title, Author, and Borrowing Member**:

Question 4:

* SELECT Clause : Specifies the columns to retrieve from the database.

Example:

* WHERE Clause : Filters rows based on specified conditions.

Example :

* ORDERBY Clause : Sorts the result set by one or more columns, either in ascending or descending order.

Example :

* GROUP BY Clause : Groups rows with the same values in specified columns and allows aggregate functions (e.g., COUNT, SUM, AVG) to be applied.

Example :

* HAVING Clause : Filters groups based on conditions after grouping.

Example :

COMBINED EXAMPLES :

**Question 5 :**

1. **Inner JOIN** : Returns only the rows where there is a match between the two tables.

**Example**

1. **LEFT JOIN** : Returns all rows from the left table and the matching rows from the right table.

**Example**

1. **RIGHT JOIN:** Returns all rows from the right table and the matching rows from the left table.

**Example**

1. **FULL OUTER JOIN :** Combines the results of both LEFT JOIN and RIGHT JOIN.

**Example**

**Question 1 :**

1. **157**

**Decimal to Binary**

157 (decimal) = 10011101 (binary)

**Decimal to Octal**

157 (decimal) = 235 (octal)

**Decimal to Hexadecimal**

1. (decimal) = 9D (hexadecimal)
2. **255**

**Decimal to Binary**

**255 (decimal) = 11111111 (binary)**

**Decimal to Octal**

**255 (decimal) = 377 (octal)**

**Decimal to Hexadecimal**

**255 (decimal) = FF (hexadecimal)**

1. **1024**

**Decimal to Binary**

**1024 (decimal) = 10000000000 (binary)**

**Decimal to Octal**

1024 (decimal) = 2000 (octal)

**Decimal to Hexadecimal**

1024 (decimal) = 400 (hexadecimal)

1. 4096

**Decimal to Binary**

4096 (decimal) = 1000000000000 (binary)

**Decimal to Octal**

4096 (decimal) = 10000 (octal)

**Decimal to Hexadecimal**

4096 (decimal) = 1000 (hexadecimal)

**Question 2:**

(a)A5

A in hexadecimal represents **10** in decimal & 5 in hexadecimal is simply **5** in decimal.

10 (decimal) to binary:

5 (decimal) to binary:

**A5 (hex) = 1010 0101 (binary)**

**(b) FF**

F in hexadecimal represents 15 in decimal.

15 (decimal) to binary:

**FF (hex) = 1111 1111 (binary).**

**(c) 1A2**

1 in hexadecimal is simply 1 in decimal.

1 (decimal) to binary:

1 (decimal) = 0001 (binary).

A in hexadecimal represents **10** in decimal.

From the previous calculation: **10 (decimal) = 1010 (binary)**

2 in hexadecimal is simply **2** in decimal.

2 (decimal) to binary:

**2 (decimal) = 0010 (binary)**

1**A2 (hex) = 0001 1010 0010 (binary)**.

(d) FACE

**Hexadecimal F → Binary**

* F in hexadecimal represents **15** in decimal.
* From the previous calculation: **15 (decimal) = 1111 (binary)**

**Hexadecimal A → Binary**

* A in hexadecimal represents **10** in decimal.
* From the previous calculation: **10 (decimal) = 1010 (binary)**

**Hexadecimal C → Binary**

* C in hexadecimal represents **12** in decimal.
* To convert 12 (decimal) to binary:

12 ÷ 2 = 6 remainder **0**

6 ÷ 2 = 3 remainder **0**

3 ÷ 2 = 1 remainder **1**

1 ÷ 2 = 0 remainder **1**

* **12 (decimal) = 1100 (binary)**

**FACE (hex) = 1111 1010 1100 1110 (binary)**.