Control Flow Statements in C

6.Explain decision-making statements in C (if, else, nested if else, switch). Provide examples of each.

→ if Statement: Executes a block of code if a condition is true.

→ int num = 5;

→ if (num > 0) {

→ printf("Positive number");

→ }

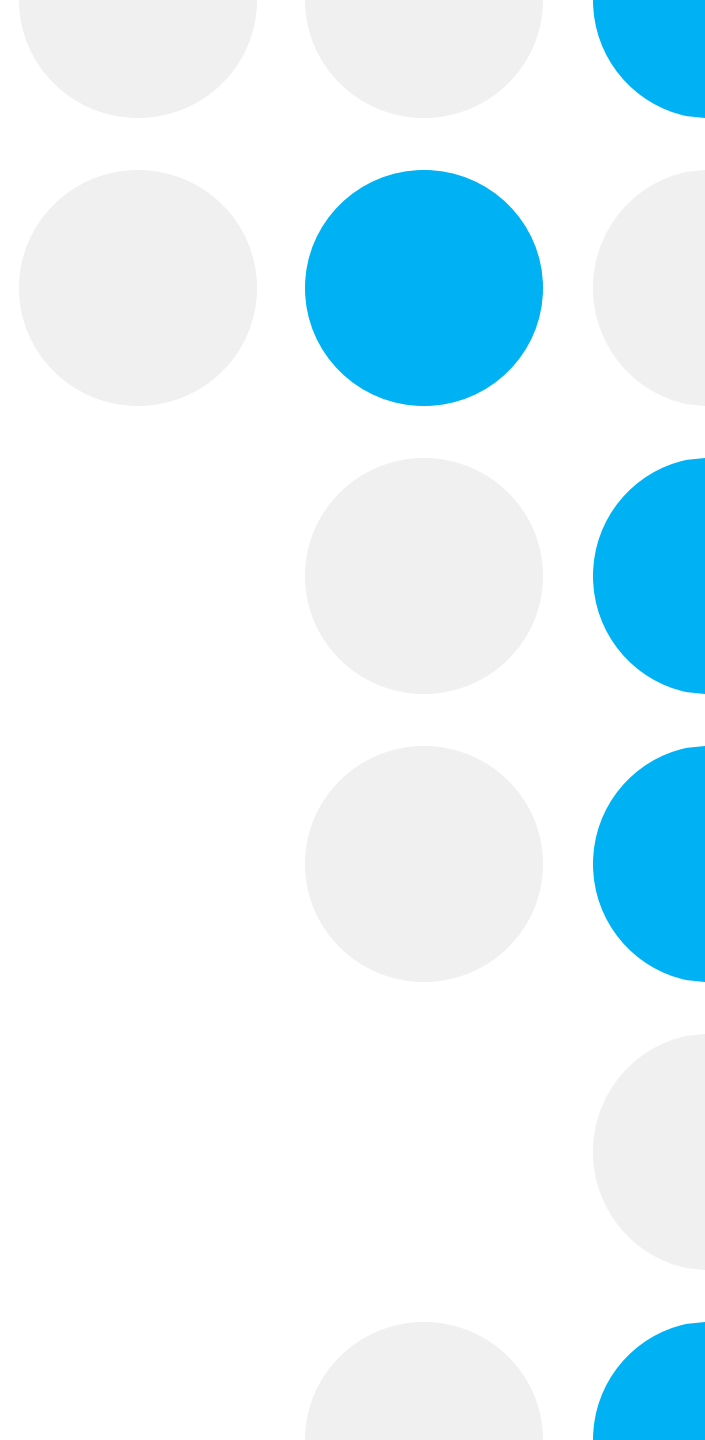→ if-else Statement: Adds an alternative action if the condition is false.

→ int num = -3;

→ if (num > 0) {

→ printf("Positive number");

→ } else {

→ printf("Non-positive number");

→ }

→ Nested if-else Statement: Places one if-else inside another for multiple conditions.

→ int num = 0;

 → if (num > 0) {

 → printf("Positive number");

→ } else if (num < 0) {

 → printf("Negative number");

→ } else {

→ printf("Zero"); }

→ switch Statement: Selects one of many options based on a variable's value, often used for multiple constant comparisons.

 → int day = 3;

→ switch (day) {

 → case 1: printf("Monday"); break;

 → case 2: printf("Tuesday"); break;

→ case 3: printf("Wednesday"); break;

 → default: printf("Invalid day"); }