Q1) Write a C program to find the sum and average of three numbers inputted from the user.

Q2) Write a C program to convert temperature in degree celcius to degree fahrenheit using the relation: $f = 1.8C + 32$

Q3) Write a C program to find the area and circumference of a circle of radius r.

Q4) Write a C program to find the value of y using the relation $y = x^2 + 2x - 1$.

Q5) Write a C program to find the ASCII character of a given integer.

Q6) Write a C program to calculate simple interest and compound interest.

Q7) Write a C program to swap the values of two variables using a third variable.

Q8) Write a C program to calculate the distance traversed by light in 'n' years.

Q9) Write a C program that will read a decimal number and print the smallest integer not less than the number and the largest integer not greater than the number.

Q10) Write a C program to convert 's' seconds into number of days, hours and minutes.

DAY 2

Q11) Write a C program to input three real values x, y and z and then rotate these values such that x has the value of y, y has the value of z and z has the value of x.

Q12) Write a C program to read a floating-point number and then display the right-most and the left-most digits of the integral part of the number.

Q13) Write a C program to read a four-digit number and print the sum of its digits.

Q14) Write a C program to read three values from the keyboard and print out the largest and the smallest of them without using the if statement.

Q15) Write a C program to print a table of sin, cos and tan functions for the interval from 0 to 90 degrees in increments of 15 degrees.

x (in degrees)	sin(x)	cos(x)	tan(x)
0			
15			
30			
45			
60			
75			
90			

DAY 3

Q16) Write a C program that will read the value of x and evaluate the following function:

$$y = \begin{cases} 1, & \text{for } x < 0 \\ 0, & \text{for } x = 0 \\ -1, & \text{for } x > 0 \end{cases}$$

using
(a) nested if statements
(b) else if statements
(c) conditional operator
(d) switch-case statement

Q17) Write a C program to compute the real roots of a quadratic equation $ax^2+bx+c=0$
The roots are given by the equations:

$$x_1 = \frac{-b+\sqrt{b^2-4ac}}{2a} \quad \& \quad x_2 = \frac{-b-\sqrt{b^2-4ac}}{2a}$$

The program should request for the values of the constants a, b and c and print the values of x_1 and x_2. You are asked to specify the following rules as well:
(a) No solution → if both a and b are zero
(b) Only one root → if $a=0$
(c) No real roots → if b^2-4ac is negative
(d) There are two real roots (if other cases are invalid)

Q18) Write a C program to compute and display the sum and product of all integers that are divisible by x but not divisible by y and lie between 0 and 50. The program should also count and display the number of such values. Take x & y as user-input.

Q19) Write a menu-driven C program to read a number and check whether it is one of the following:
(a) Prime number (b) Even/Odd number
(c) Armstrong number (d) Positive/Negative/Zero.

Q20) Write a C program to compute y using the formula:
$y = 1.2x + 0.98$ when $x <= 1.0$
$= 1.7x + 0.09$ when $x > 1.0$ by using switch

DAY 4

Q21) Write a menu-driven C program that would perform operations based upon the type of operator chosen by the user. The following operators are displayed as menu choices:

(a) Arithmetic Operators
(b) Relational Operators
(c) Logical Operators
(d) Increment/Decrement Operators
(e) Bitwise Operators
(f) Assignment Operators / Compound assignment operators
(g) Ternary Operator
(h) Sizeof Operator

Your program should take necessary inputs pertaining to the chosen menu.