Ques1 - Write an algorithm for: Print “Hello World”.

ANSWER- #include <stdio.h> // Header file for input/output functions

int main() {

printf("Hello World"); // Print message to screen

return 0; // Exit program successfully

}

QUES 2- Write an algorithm for: “Adding two numbers”

ANSWER- #include <stdio.h>

int main() {

d number

int sum; // variable to store result

sum = a + b; // add the two numbers

printf("The sum is: %d", sum);

return 0;

}

QUES 3- Write a program that prompts the user to enter their name and age and print the same.

ANSWER - #include <stdio.h>

int main() {

char name[50]; // to store name

int age;

printf("Enter your name: ");

scanf("%49s", name); // reads a single word (no spaces)

printf("Enter your age: ");

scanf("%d", &age);

printf("\nYour name is %s and you are %d years old.\n", name, age);

return 0;

}

QUES 4 -Write a C program to add two numbers, take number from user and print the sum.

ANSWER- #include <stdio.h>

int main() {

int num1, num2, sum;

// Taking input from user

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

// Adding the numbers

sum = num1 + num2;

// Displaying result

printf("The sum of %d and %d is: %d\n", num1, num2, sum);

return 0;

}

QUES 5 - Write a C Program to print the address in multiple lines (new line).

ANSWER- #include <stdio.h>

int main() {

printf("Radhika Sharma\n");

printf("123, Green Park Colony\n");

printf("Jaipur, Rajasthan\n");

printf("India - 302001\n");

return 0;

}

QUES 6 - Write an algorithm and flowchart to add two numbers and print the sum.

ANSWER-

**Algorithm to Add Two Numbers**

1. **Start**
2. **Input** the first number (say A).
3. **Input** the second number (say B).
4. **Compute** the sum → SUM = A + B.
5. **Print** the value of SUM.
6. **Stop**

**Flowchart**

┌───────────┐

│ Start │

└─────┬─────┘

│

┌───────▼────────┐

│ Input number A │

└───────┬────────┘

│

┌───────▼────────┐

│ Input number B │

└───────┬────────┘

│

┌───────▼────────┐

│ SUM = A + B │

└───────┬────────┘

│

┌───────▼────────┐

│ Print SUM │

└───────┬────────┘

│

┌─────▼─────┐

│ Stop │

└───────────┘

QUES 7 - Write an algorithm and flowchart to print your name and address.

ANSWER -

**Algorithm to Print Name and Address**

1. **Start**
2. **Store** your name in a variable NAME.
3. **Store** your address in a variable ADDRESS.
4. **Print** the value of NAME.
5. **Print** the value of ADDRESS.
6. **Stop**

**Flowchart**

┌───────────┐

│ Start │

└─────┬─────┘

│

┌───────▼────────────┐

│ Store NAME │

└───────┬────────────┘

│

┌───────▼────────────┐

│ Store ADDRESS │

└───────┬────────────┘

│

┌───────▼────────────┐

│ Print NAME │

└───────┬────────────┘

│

┌───────▼────────────┐

│ Print ADDRESS │

└───────┬────────────┘

│

┌─────▼─────┐

│ Stop │

└───────────┘

QUES 8 - 1.⁠ ⁠WAP a C program to calculate the area and perimeter of a rectangle based on its length and width.

ANSWER-

#include <stdio.h>

int main() {

float length, width, area, perimeter;

// Input length and width

printf("Enter length of the rectangle: ");

scanf("%f", &length);

printf("Enter width of the rectangle: ");

scanf("%f", &width);

// Calculate area and perimeter

area = length \* width;

perimeter = 2 \* (length + width);

// Output results

printf("Area of Rectangle = %.2f\n", area);

printf("Perimeter of Rectangle = %.2f\n", perimeter);

return 0;

}

**2.** **⁠WAP a C program to Convert temperature from Celsius to Fahrenheit using the formula: F = (C \* 9/5) + 32.**

ANSWER-

#include <stdio.h>

int main() {

float celsius, fahrenheit;

// Input temperature in Celsius

printf("Enter temperature in Celsius: ");

scanf("%f", &celsius);

// Conversion formula

fahrenheit = (celsius \* 9 / 5) + 32;

// Output result

printf("Temperature in Fahrenheit = %.2f\n", fahrenheit);

return 0;

}

QUES 9 - 3. Write a program to read a four digit integer and print the sum of its digits.

Hint: Use / and % operators.

ANSWER - #include <stdio.h>

int main() {

int num, d1, d2, d3, d4, sum;

// Input a four-digit number

printf("Enter a four-digit number: ");

scanf("%d", &num);

// Extract digits using / and %

d1 = num / 1000; // First digit

d2 = (num / 100) % 10; // Second digit

d3 = (num / 10) % 10; // Third digit

d4 = num % 10; // Fourth digit

// Calculate sum

sum = d1 + d2 + d3 + d4;

// Output result

printf("Sum of digits = %d\n", sum);

return 0;

}

QUES 10 - 4. Write a C program to demonstrate the use of pre-increment (++x) and post-increment (x++) on a variable. Print the value of the variable before and after each operation.

ANSWER - #include <stdio.h>

int main() {

int x;

// Input a number

printf("Enter a number: ");

scanf("%d", &x);

// Post-increment demonstration

printf("\nPost-increment (x++):\n");

printf("Before operation: %d\n", x);

printf("During operation: %d\n", x++); // prints old value, then increases

printf("After operation: %d\n", x);

// Pre-increment demonstration

printf("\nPre-increment (++x):\n");

printf("Before operation: %d\n", x);

printf("During operation: %d\n", ++x); // increases first, then prints

printf("After operation: %d\n", x);

return 0;

}