Practical 3

1.#include <stdio.h>

int main() {

int num1, num2;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

if (num1 > num2) {

printf("The highest number is: %d\n", num1);

} else if (num2 > num1) {

printf("The highest number is: %d\n", num2);

} else {

printf("Both numbers are equal.\n");

}

return 0;

}

2.#include <stdio.h>

int main() {

int num1, num2, num3;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

printf("Enter the third number: ");

scanf("%d", &num3);

int largest = num1;

int smallest = num1;

if (num2 > largest) {

largest = num2;

}

if (num3 > largest) {

largest = num3;

}

if (num2 < smallest) {

smallest = num2;

}

if (num3 < smallest) {

smallest = num3;

}

printf("The largest number is: %d\n", largest);

printf("The smallest number is: %d\n", smallest);

return 0;

}

3.#include <stdio.h>

int main() {

char employeeName[50];

float basicSalary, newsalary, increment;

printf("Enter employee name: ");

scanf("%s", employeeName);

printf("Enter basic salary: ");

scanf("%f", &basicSalary);

if (basicSalary < 5000) {

increment = basicSalary \* 0.05;

} else if (basicSalary >= 5000 && basicSalary < 10000) {

increment = basicSalary \* 0.1;

} else {

increment = basicSalary \* 0.15;

}

newSalary = basicSalary + increment;

printf("\nEmployee Name: %s\n", employeeName);

printf("New Salary: %.2f\n", newSalary);

return 0;}

4.#include <stdio.h>

#define PI 3.14159

int main() {

float radius, diameter, circumference, area;

printf("Enter the radius of the circle: ");

scanf("%f", &radius);

diameter = 2 \* radius;

circumference = 2 \* PI \* radius;

area = PI \* radius \* radius;

printf("Diameter: %.2f\n", diameter);

printf("Circumference: %.2f\n", circumference);

printf("Area: %.2f\n", area);

return 0;

}

5.#include <stdio.h>

int main() {

int num1, num2;

printf("Enter the first integer: ");

scanf("%d", &num1);

printf("Enter the second integer: ");

scanf("%d", &num2);

if (num1 % num2 == 0) {

printf("%d is a multiple of %d\n", num1, num2);

} else {

printf("%d is not a multiple of %d\n", num1, num2);

}

return 0;

}

6.#include <stdio.h>

int main() {

char uppercaseLetters[] = "ABC";

char lowercaseLetters[] = "abc";

char digits[] = "012";

char specialSymbols[] = "$\*+/ ";

printf("Integer equivalents of uppercase letters:\n");

for (int i = 0; i < sizeof(uppercaseLetters) - 1; i++) {

printf("%c: %d\n", uppercaseLetters[i], (int)uppercaseLetters[i]);

}

printf("\nInteger equivalents of lowercase letters:\n");

for (int i = 0; i < sizeof(lowercaseLetters) - 1; i++) {

printf("%c: %d\n", lowercaseLetters[i], (int)lowercaseLetters[i]);

}

printf("\nInteger equivalents of digits:\n");

for (int i = 0; i < sizeof(digits) - 1; i++) {

printf("%c: %d\n", digits[i], (int)digits[i]);

}

printf("\nInteger equivalents of special symbols:\n");

for (int i = 0; i < sizeof(specialSymbols) - 1; i++) {

printf("%c: %d\n", specialSymbols[i], (int)specialSymbols[i]);

}

return 0;

}

7.#include <stdio.h>

int main() {

float basicSalary, additionalAllowance = 0, bonus = 0, monthlySales, grossRemuneration;

char city;

printf("Enter the basic salary: ");

scanf("%f", &basicSalary);

printf("Enter the number of years of service: ");

int yearsOfService;

scanf("%d", &yearsOfService);

printf("Enter the city ('C' for Colombo, any other character for other cities): ");

scanf(" %c", &city);

printf("Enter the monthly sales (in Rs): ");

scanf("%f", &monthlySales);

if (yearsOfService > 5) {

additionalAllowance = 0.1 \* basicSalary;

}

if (city == 'C') {

additionalAllowance += 2500;

}

if (monthlySales <= 25000) {

bonus = 0.1 \* monthlySales;

} else if (monthlySales <= 50000) {

bonus = 0.12 \* monthlySales;

} else {

bonus = 0.15 \* monthlySales;

}

grossRemuneration = basicSalary + additionalAllowance + bonus;

printf("Gross Monthly Remuneration: %.2f\n", grossRemuneration);

return 0;

}