**Practical 03**

(01) #include <stdio.h>

#include <stdlib.h>

int main()

{

int num1,num2,max;

printf("Enter two numbers: ");

scanf("%d %d",&num1,&num2);

if(num1>num2)

max=num1;

else

max=num2;

printf("\nThe highest number is %d\n",max);

return 0;

}

(02) #include <stdio.h>

#include <stdio.h>

int main() {

int num1, num2, num3,max,min;

printf("Enter three integers: ");

scanf("%d %d %d", &num1, &num2, &num3);

max = num1;

if (num2 > max)

max = num2;

else

if (num3 > max)

max = num3;

min = num1;

if (num2 < min)

min = num2;

else

if (num3 < min)

min = num3;

printf("Largest number is %d\n", max);

printf("Smallest number is %d\n", min);

return 0;

}

(03) #include <stdio.h>

#include <stdlib.h>

int main() {

char employeeName[50];

float basicSalary, newSalary, increment;

printf("Enter the employee name: ");

scanf("%s", employeeName);

printf("Enter the 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("Basic Salary: %.2f\n", basicSalary);

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

return 0;

}

(04) #include <stdio.h>

#include <stdlib.h>

#define PI 3.14159

int main() {

double radius, diameter, circumference, area;

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

scanf("%lf", &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;

}

(05) #include <stdio.h>

#include <stdlib.h>

int main() {

int num1, num2;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

if (num2 != 0 && 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;

}

(06) #include <stdio.h>

#include <stdlib.h>

int main() {

char characters[] = {'A', 'B', 'C', 'a', 'b', 'c', '0', '1', '2', '$', '\*', '+', '/', ' '};

int num\_chars = sizeof(characters) / sizeof(char);

printf("Character\tInteger Equivalent\n");

printf("---------\t------------------\n");

for (int i = 0; i < num\_chars; i++) {

printf("%c\t\t%d\n", characters[i], characters[i]);

}

return 0;

}

(07) #include <stdlib.h>

#include <stdio.h>

int main() {

int years\_of\_service, monthly\_sales;

char city;

float basic\_salary, additional\_allowance, bonus, gross\_remuneration;

printf("Enter the basic salary: ");

scanf("%f", &basic\_salary);

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

scanf("%d", &years\_of\_service);

printf("Enter the monthly sales: ");

scanf("%d", &monthly\_sales);

printf("Enter the city (C for Colombo): ");

scanf(" %c", &city);

// Calculate additional allowance for years of service

if (years\_of\_service > 5)

additional\_allowance = 0.1 \* basic\_salary;

else

additional\_allowance = 0;

// Calculate additional allowance for working in Colombo

if (city == 'C') {

additional\_allowance += 2500;

}

// Calculate bonus based on monthly sales

if (monthly\_sales <= 25000)

bonus = 0.1 \* monthly\_sales;

else if (monthly\_sales <= 50000)

bonus = 0.12 \* monthly\_sales;

else

bonus = 0.15 \* monthly\_sales;

// Calculate gross remuneration

gross\_remuneration = basic\_salary + additional\_allowance + bonus;

printf("Gross monthly remuneration: %.2f\n", gross\_remuneration);

return 0;

}