/\* Write a c program to compute the gross salary of an employee by reading his basic pay from the keyboard.

Gross salary = BP + HRA + DA + TA

HR= 10% of BP

TA= 5% of Bp

DA= 15% of Bp\*/

#include <stdio.h>

int main() {

float basicPay, grossSalary, hra, da, ta;

// Read basic pay from the user

printf("Enter the basic pay: ");

scanf("%f", &basicPay);

// Calculate HRA (10% of basic pay)

hra = 0.10 \* basicPay;

// Calculate DA (15% of basic pay)

da = 0.15 \* basicPay;

// Calculate TA (5% of basic pay)

ta = 0.05 \* basicPay;

// Calculate gross salary

grossSalary = basicPay + hra + da + ta;

// Display the gross salary

printf("Gross Salary: %.2f\n", grossSalary);

return 0;

}

OUTPUT->

Enter the basic pay: 50000

Gross Salary: 65000.00

Enter the basic pay: 40000

Gross Salary: 52000.00

/\* write a program in c to read a character from keyboard and find whether it is a number alphabet or symbol\*/

#include <stdio.h>

int main() {

char ch;

printf("Enter any character: ");

scanf(" %c", &ch); // Added a space before %c to consume any leading whitespace

// Making condition for checking alphabet

if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {

printf("Character is an alphabet.\n");

}

// Condition for checking number

else if (ch >= '0' && ch <= '9') { // Removed the semicolon here

printf("Character is a number.\n");

}

// If it is neither alphabet nor number, then it's a symbol

else {

printf("Character is a symbol.\n");

}

return 0;

}

OUTPUT->

Enter any character: %

Character is a symbol.

Enter any character: 5

Character is a number.

Enter any character: a

Character is an alphabet.

/\* write a program to read year from the user and check wheter that year is a leap year or not

year=2004.\*/

#include <stdio.h>

int main() {

int year;

// Read the year from the user

printf("Enter a year: ");

scanf("%d", &year);

// Check if it's a leap year

if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {

printf("%d is a leap year.\n", year);

} else {

printf("%d is not a leap year.\n", year);

}

return 0;

}

OUTPUT->

Enter a year: 2006

2006 is not a leap year.

Enter a year: 2008

2008 is a leap year.

/\*Write a C program to read three test scores of a student and find the average of best two scores. Assume a test of MM 25 marks each. \*/

#include <stdio.h>

int main() {

int score1, score2, score3;

// Input the three test scores

printf("Enter the first test score (out of 25): ");

scanf("%d", &score1);

printf("Enter the second test score (out of 25): ");

scanf("%d", &score2);

printf("Enter the third test score (out of 25): ");

scanf("%d", &score3);

// Find the minimum score among the three

int min\_score = score1;

if (score2 < min\_score) {

min\_score = score2;

}

if (score3 < min\_score) {

min\_score = score3;

}

// Calculate the average of the best two scores

int average = (score1 + score2 + score3 - min\_score) / 2;

printf("The average of the best two scores is: %d\n", average);

return 0;

}

OUTPUT->

Enter the first test score (out of 25): 20

Enter the second test score (out of 25): 20

Enter the third test score (out of 25): 20

The average of the best two scores is: 20

Enter the first test score (out of 25): 20

Enter the second test score (out of 25): 15

Enter the third test score (out of 25): 10

The average of the best two scores is: 17

/\*Write a C program to read the value of x from the user and calculate the final value of the function F(x) for the following equations as shown:

F(x) = x2+2 if 0<=x<=10

F(x) = x2+2x if 11<=x<=20

F(x) = x3+2x2 if 21<=x<=30

F(x) = 0 if x>30 \*/

#include <stdio.h>

int main() {

double x, result;

// Input the value of x

printf("Enter the value of x: ");

scanf("%lf", &x);

// Calculate F(x) based on the specified conditions

if (x >= 0 && x <= 10) {

result = x \* x + 2;

} else if (x >= 11 && x <= 20) {

result = x \* x + 2 \* x;

} else if (x >= 21 && x <= 30) {

result = x \* x \* x + 2 \* x \* x;

} else {

result = 0;

}

// Print the final result

printf("F(x) = %.2lf\n", result);

return 0;

}

OUTPUT->

Enter the value of x: 4

F(x) = 18.00

Enter the value of x: 88

F(x) = 0.00