**Sri Lanka Institute of Information Technology**

**B. Sc Degree in IT/ISE/CSN**

**Year 1 – Semester 1 – 2019 – Regular Intake**

**Introduction To Programming ( IT1010)**

**Online 1**

**Version B**

**Time : 1 hour**

“NewWay” company gives a monthly allowance to their employees based on their designation and basic salary as follows:

|  |  |  |
| --- | --- | --- |
| **Designation** | **Category** | **Allowance** |
| Director | A | 12% |
| Manager | B | 10% |
| Software Architect | C | 6% |
| Senior Software Engineer | D | 3% |
| Other | E | 0% |

Further, they can do maximum of 20 hours overtime work per week as follows:

|  |  |
| --- | --- |
| **Duration (Hours)** | **OT amount per hour (Rs)** |
| For first 5 hours | 200 |
| 5< Hours <= 10 | 300 |
| 11 <= Hours <= 15 | 400 |
| 16 <= Hours <= 20 | 500 |

Write a C program to do the following:

1. Input the employee’s category, basic salary and OT hours for the Employee.

Input Employee’s category (A/B/C/D/E) :

Input basic salary :

1. Determine the allowance percentage for the respective employee category.

1. Calculate the allowance amount.
2. Read the OT hours per week from the keyboard and calculate the OT amount for a week. Repeat this for 4 weeks using a loop and calculate the total OT amount for the month.

Input OT hours for week 1:

Input OT hours for week 2:

Input OT hours for week 3:

Input OT hours for week 4:

1. Calculate the total salary for the month as a total of basic salary, OT amount and allowance.

Format the output into 2 decimal points

Sample output is given below:

Input Employee’s category (A/B/C/D/E) : B

Input basic salary : 50000.00

Input OT hours for week 1 : 10

Input OT hours for week 2 : 5

Input OT hours for week 3 : 15

Input OT hours for week 4 :15

Total salary : 71000.00

#include <stdio.h>

int main()

{

char cat;

float sal, allowance, allowAmt, otAmt, netAmt, tot = 0;

int hrs, week =1;

printf("Employee category: (A/B/C/D):");

scanf(" %c", &cat);

printf("Input basic salary:");

scanf("%f", &sal);

while(week <= 4){

otAmt = 0;

printf("Input OT hours for week %d:", week);

scanf("%d", &hrs);

if(hrs <= 5)

otAmt = hrs \* 200;

else if(hrs <= 10)

otAmt= hrs \* 300;

else if(hrs <= 15)

otAmt= hrs \* 400;

else if (hrs <= 20)

otAmt= hrs \* 500;

else {

otAmt = 0;

printf("Invalid no.of hours\n");

}

tot += otAmt;

++week;

}

if(cat == 'A')

allowance = 0.12;

else if(cat == 'B')

allowance = 0.10;

else if(cat == 'C')

allowance = 0.06;

else if(cat == 'D')

allowance = 0.03;

else

allowance = 0.0;

allowAmt = sal \* allowance;

netAmt = sal + allowAmt + tot;

printf("Total salary: %.2f\n", netAmt);

return 0;

}