Programming Fundamentals

Assignment 1

Solution

Problem 1: Write a C program that takes basic salary from the user and displays the total salary. If the salary is greater or equal to 20,000 then add bonus of 10% into basic salary and if the salary is greater or equal to 30,000 then add bonus of 15%.

Solution:

```
#include<stdio.h>
#include<conio.h>
int main(){
	float salary;
	float bonus=0;
	printf("Enter the Basic Salary: \n");
	scanf("%f",&salary);
	if(salary >= 20000){
		bonus = 10;
		salary = salary + (salary * bonus/100);
		printf("Total salary is : %f\n",salary);
	}
	else if(salary >= 30000){
		bonus = 15;
		salary = salary + (salary * bonus/100);
```

```
                printf("Total salary is : %f\n", salary);
        }
        else
        {
                printf("Total salary is : %f\n", salary);
        }
        return 0;
        getch();
}
```

Problem 2: Write a C program that reads in three integers and then determines and print the largest and smallest integer among them.

Solution:

```
#include<stdio.h>
#include<conio.h>
int main()
{
        int first_num,second_num,third_num ;
        printf("Enter first number:  ");
        scanf("%d", &first_num);
        printf("\nEnter second number:  ");
        scanf("%d", &second_num);
        printf("\nEnter third number:  ");
        scanf("%d", &third_num);
```

```
    if(first_num > second_num && first_num > third_num){
        printf("First number is greater\n");
        if(second_num < third_num){
            printf("Second number is smallest\n");
        }
        else if (third_num < second_num){
            printf("Third number is smallest\n");
        }

    }
    else if(second_num > first_num && second_num > third_num ){
        printf("\nSecond number is greater\n");
            if(first_num < third_num){
            printf("First number is smallest\n");
        }
        else if (third_num < first_num){
            printf("Second number is smallest\n");
        }

    }
    else{
        printf("\nThird number is greater\n");
        if(first_num < second_num){
            printf("First number is smallest");
```

```
                }
                else if (second_num < first_num){
                        printf("Second number is smallest\n");
                }


        }
        return 0;
        getch();
}
```

Problem 3: What, if anything, prints when each of the following statements is performed? If nothing prints, then answer “Nothing”. Assume x= 5 and y =7

1) printf(“%d”, x);
   5
2) printf(“%d”, x+y);
   12
3) printf(“ x= ”);
   x=
4) printf(“%d = %d”, x+y , y+x);
   12 = 12
5) //printf(“y - x = %d” , y-x);
   Nothing
6) printf(“\n\a”);
   new line and sound
7) z= y-x ;
   Nothing