

# HOME SUBMISSION

**Name:** Shah Hunain

**Roll Number:** 23k-3032

## Question 1:

### CODE

```
#include<stdio.h>
#include<conio.h>
void main (void){

    int number,d1,temporary,newnumber;

    printf("Enter a '5' five digit number to check its divisibility by 7\n");
    scanf("%d",&number);

    d1=number%10;
    temporary=number/10;
    newnumber=temporary-2*d1;

    d1=newnumber%10;
    newnumber=newnumber/10;
    newnumber=newnumber-2*d1;

    d1=newnumber%10;
    newnumber=newnumber/10;
    newnumber=newnumber-2*d1;

    if ((newnumber==7)||(newnumber==0)||(newnumber==7)){
        printf("The number is divisible by 7\n");
    }
```

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else

```
printf("The number is not divisible by 7\n");  
}
```

## OUTPUT

 "D:\1st Semister\Programming Fundamentals-Lab\Assignment\Task 1\Task 1.exe"

```
Enter a '5' five digit number to check its divisibility by 7  
10976  
The number is divisible by 7  
  
Process returned 0 (0x0)   execution time : 14.133 s  
Press any key to continue.
```

## Question 2:

## CODE

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main (void){
```

```
float noofcalories,fatgrams,caloriesfromfat,totalcalories,percentofcalories;
```

```
printf("Enter the number of calories and fat grams in food\n");
```

```
scanf("%f %f",&noofcalories,&fatgrams);
```

```
//If the calories from fat are less than 30% of the total calories of the food, the food is low in fat
```

```
caloriesfromfat=fatgrams*9;
```

```
totalcalories=noofcalories+caloriesfromfat;
```

```
percentofcalories=caloriesfromfat/totalcalories*100;
```

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```
if((noofcalories<0)||fatgrams<0)||caloriesfromfat>totalcalories){  
    printf("\nEither the calories or fat grams were incorrectly entered\n");  
}else if (caloriesfromfat>0.3*totalcalories){  
    printf("\nPercentage of calories that come from fat is %.2f\n",percentofcalories);  
} else if (caloriesfromfat<0.3*totalcalories){  
    printf("\nPercentage of calories that come from fat is %.2f\n",percentofcalories);  
    printf("\nThe food is low in fats\n");  
}  
}
```

## OUTPUT

```
"D:\1st Semester\Programming Fundamentals-Lab\Assignment\Task 2\Task 2  
Enter the number of calories and fat grams in food  
85  
71  
  
Percentage of calories that come from fat is 88.26  
  
Process returned 52 (0x34)   execution time : 7.913 s  
Press any key to continue.
```

### Question 3:

## CODE

```
#include<stdio.h>  
  
#include<conio.h>  
  
void main (void){  
  
  
float NTS,FSC;  
  
  
printf("Enter your FSC marks: \n");  
  
scanf("%f", &FSC);
```

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```
printf("Enter your NTS marks: \n");
```

```
scanf("%f", &NTS);
```

```
if ((FSC>70)&&(NTS>=70)){
```

```
    printf("\nOxford University\n");
```

```
    printf("\nIT\n");
```

```
}else if ((FSC>70)&&(NTS>=60)){
```

```
    printf("\nOxford University\n");
```

```
    printf("\nElectronics\n");
```

```
}else if ((FSC>70)&&(NTS>=50)){
```

```
    printf("\nOxford University\n");
```

```
    printf("\nTelecommunication\n");
```

```
}else if((FSC>=60 && FSC<=70)&&(NTS>=50)){
```

```
    printf("\nMIT\n");
```

```
    printf("\nIT\n");
```

```
}else if((FSC>=50 && FSC<=59)&&(NTS>=50)){
```

```
    printf("\nMIT\n");
```

```
    printf("\nChemical\n");
```

```
}else if((FSC<50 && FSC>40)&&(NTS>=50)){
```

```
    printf("\nMIT\n");
```

```
    printf("\nComputer\n");
```

```
}
```

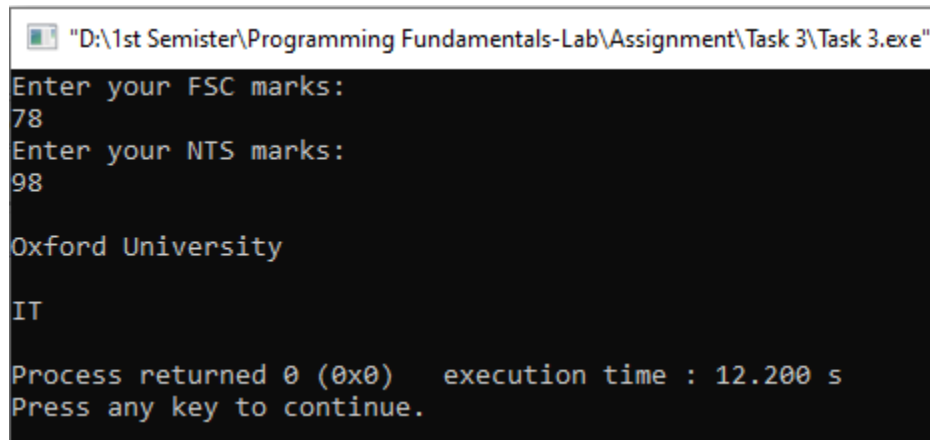
```
}
```

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## OUTPUT



```
"D:\1st Semester\Programming Fundamentals-Lab\Assignment\Task 3\Task 3.exe"
Enter your FSC marks:
78
Enter your NTS marks:
98

Oxford University

IT

Process returned 0 (0x0)   execution time : 12.200 s
Press any key to continue.
```

## Question 4:

## CODE

```
#include<stdio.h>
#include<conio.h>
void main (void){

int weekday,vacation;
weekday=vacation=0;

printf("Please follow the following instruction\n");
printf("\n1 If its a weekday\n0 If its not a weekday\n");
scanf("%d",&weekday);

printf("\nPlease follow the following instruction\n");
printf("\n1 If its a vacation\n0 If its not a vacation\n");
scanf("%d",&vacation);
```


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```
if (weekday==0 && vacation==0)
    printf("\nTrue....You can sleepin\n");
else if (weekday==1 && vacation==0)
    printf("\nFalse....You cannot sleepin\n");
else if (weekday==0 && vacation==1)
    printf("\nTrue....You can sleepin\n");
else
    printf("\nInvalid Input\n");
}
```

## OUTPUT

 "D:\1st Semister\Programming Fundamentals-Lab\Assignment\Task 4\Task 4.exe"

```
Please follow the following instruction
1 If its a weekday
0 If its not a weekday
0

Please follow the following instruction
1 If its a vacation
0 If its not a vacation
0

True....You can sleepin

Process returned 0 (0x0)   execution time : 3.015 s
Press any key to continue.
```

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## Question 5:

### CODE

```
#include<stdio.h>
#include<conio.h>
void main (void){
char coffee,size;
int Totaltime;
printf("Enter your choice for coffee\nB= Black \nW=White\n");
coffee=getche();
printf("\nEnter size of coffee you want\nD= Double \nM= Manual\n");
size=getche();
switch(coffee){
case 'W':
    if((coffee=='W') && (size=='M')){
        printf("\n_____ \n");
        printf("Operation          White Coffee\n");
        printf("_____ \n");
        printf("Put Water          15 mins\n");
        printf("Sugar              15 mins\n");
        printf("Mix Well           20 mins\n");
        printf("Add Coffee         2 mins\n");
        printf("Add Milk            4 mins\n");
        printf("Mix Well           20 mins\n");
        printf("\n_____");
        Totaltime= 15+15+20+2+4+20;
        printf("\nThe Total Bake Time is %d minutes",Totaltime);}
    else{
        printf("\n_____ \n");
```

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```
printf("Operation          White Coffee\n");
printf("_____ \n");
printf("Put Water          23 mins\n");
printf("Sugar              23 mins\n");
printf("Mix Well            30 mins\n");
printf("Add Coffee          3 mins\n");
printf("Add Milk            6 mins\n");
printf("Mix Well            30 mins\n");
printf("\n_____");
Totaltime= 23+23+30+3+6+30;
printf("\nThe Total Bake Time is %d minutes",Totaltime);
}
break;
case 'B':
if ((coffee=='B')&&(size=='M')){
printf("\n_____ \n");
printf("Operation          Black Coffee\n");
printf("_____ \n");
printf("Put Water          20 mins\n");
printf("Sugar              20 mins\n");
printf("Mix Well            25 mins\n");
printf("Add Coffee          15 mins\n");
printf("Add Milk            - mins\n");
printf("Mix Well            25 mins\n");
printf("\n_____");
Totaltime= 20+20+25+15+0+25;
printf("\nThe Total Bake Time is %d minutes",Totaltime);}
else{
printf("\n_____ \n");
```



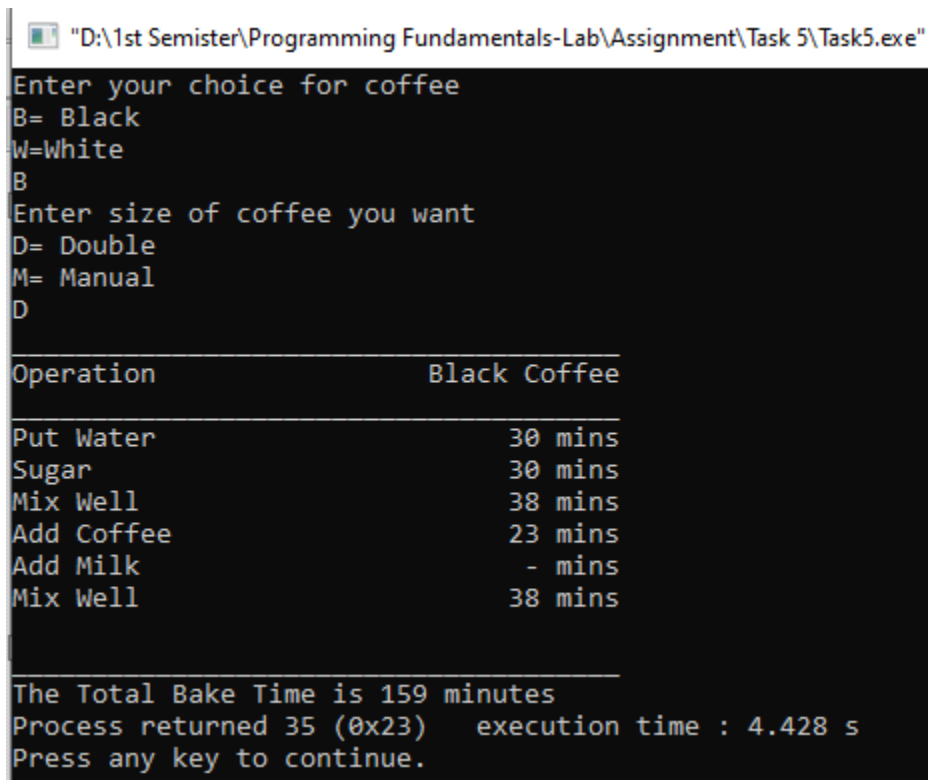
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```
printf("Operation          Black Coffee\n");
printf("_____\n");
printf("Put Water          30 mins\n");
printf("Sugar              30 mins\n");
printf("Mix Well            38 mins\n");
printf("Add Coffee          23 mins\n");
printf("Add Milk             - mins\n");
printf("Mix Well            38 mins\n");
printf("\n_____");
Totaltime= 30+30+38+23+0+38;
printf("\nThe Total Bake Time is %d minutes",Totaltime);
}
}
}
```

## OUTPUT



```
"D:\1st Semester\Programming Fundamentals-Lab\Assignment\Task 5\Task5.exe"
Enter your choice for coffee
B= Black
W=White
B
Enter size of coffee you want
D= Double
M= Manual
D

Operation          Black Coffee
Put Water          30 mins
Sugar              30 mins
Mix Well            38 mins
Add Coffee          23 mins
Add Milk             - mins
Mix Well            38 mins

The Total Bake Time is 159 minutes
Process returned 35 (0x23)   execution time : 4.428 s
Press any key to continue.
```

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## Question 6:

### CODE

```
#include<stdio.h>
#include<conio.h>
void main (void){

char choice,types,order;
int quantity,type,totalcost,p1,p2,p3,p4;
quantity=totalcost=p1=p2=p3=p4=0;

//Burger= Rs.200; French Fries= Rs.50; Pizza= Rs.500; Sandwhiches= Rs.150

printf("The following is our menu\n");
printf("B=Burger cost Rs. 200\n");
printf("F=French Fries cost Rs. 50\n");
printf("P=Pizza cost Rs. 500\n");
printf("S=Sandwhiches cost Rs. 150\n");
printf("\nHow many types of snacks you want to order?\n\n1, 2, 3 or 4?\n");
types=getche();

if(types == '1'){
    printf("\nPlease enter the snack you have to order=\n");
    type = getche();
    printf("\nEnter the quantity of the selected snack=\n");

    switch(type){
        case 'B':
```

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```
        scanf("%d", &p1);
        break;
        case 'F':
            scanf("%d", &p2);
            break;
        case 'P':
            scanf("%d", &p3);
            break;
        case 'S':
            scanf("%d", &p4);

break;
default:
    printf("\nInvalid input\n");
    }

} else if(types == '2'){
    printf("Please enter the first snack you have to order=\n");
    type = getche();
    printf("\nEnter the quantity of the selected snack=\n");

    switch(type){
        case 'B':
            scanf("%d", &p1);
            break;
        case 'F':
            scanf("%d", &p2);
            break;
        case 'P':
            scanf("%d", &p3);
```

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```
        break;

        case 'S':

            scanf("%d", &p4);

break;

default:

    printf("\nInvalid input\n");

    }

    printf("Please enter the second snack you have to order=\n");

    type = getche();

    printf("\nEnter the quantity of the selected snack=\n");


    switch(type){

        case 'B':

            scanf("%d", &p1);

            break;

        case 'F':

            scanf("%d", &p2);

            break;

        case 'P':

            scanf("%d", &p3);

            break;

        case 'S':

            scanf("%d", &p4);

            break;

    default:

        printf("\nInvalid input\n");

        }

    } else if(types == '3'){

        printf("\nPlease enter the first snack you have to order=\n");
```

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```
type = getch();

printf("\nEnter the quantity of the selected snack=\n");

switch(type){
    case 'B':
        scanf("%d", &p1);
        break;
    case 'F':
        scanf("%d", &p2);
        break;
    case 'P':
        scanf("%d", &p3);
        break;
    case 'S':
        scanf("%d", &p4);
        break;
default:
    printf("\nInvalid input\n");
}

printf("Please enter the second snack you have to order=\n");
type = getch();
printf("\nEnter the quantity of the selected snack=\n");

switch(type){
    case 'B':
        scanf("%d", &p1);
        break;
    case 'F':
        scanf("%d", &p2);
```

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```
        break;

        case 'P':

            scanf("%d", &p3);

            break;

        case 'S':

            scanf("%d", &p4);

            break;

    default:

        printf("\nInvalid input\n");

    }

    printf("Please enter the third snack you have to order=\n");

    type = getche();

    printf("\nEnter the quantity of the selected snack=\n");

    switch(type){

        case 'B':

            scanf("%d", &p1);

            break;

        case 'F':

            scanf("%d", &p2);

            break;

        case 'P':

            scanf("%d", &p3);

            break;

        case 'S':

            scanf("%d", &p4);

            break;

    default:

        printf("\nInvalid input\n");
```

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```
} else if(types == '4'){  
    printf("Please enter the first snack you want to order=\n");  
    type = getche();  
    printf("\nEnter the quantity of the selected snack=\n");  
  
    switch(type){  
        case 'B':  
            scanf("%d", &p1);  
            break;  
        case 'F':  
            scanf("%d", &p2);  
            break;  
        case 'P':  
            scanf("%d", &p3);  
            break;  
        case 'S':  
            scanf("%d", &p4);  
            break;  
        default:  
            printf("Invalid input\n");  
    }  
    printf("Please enter the second snack you want to order=\n");  
    type = getche();  
    printf("\nEnter the quantity of the selected snack=\n");  
  
    switch(type){  
        case 'B':  
            scanf("%d", &p1);
```

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```
        break;

        case 'F':

            scanf("%d", &p2);

            break;

        case 'P':

            scanf("%d", &p3);

            break;

        case 'S':

            scanf("%d", &p4);

break;
default:

    printf("\nInvalid input\n");

    }

    printf("Please enter the third snack you want to order=\n");

    type = getche();

    printf("\nEnter the quantity of the selected snack=\n");


switch(type){

    case 'B':

        scanf("%d", &p1);

        break;

    case 'F':

        scanf("%d", &p2);

        break;

    case 'P':

        scanf("%d", &p3);

        break;

    case 'S':

        scanf("%d", &p4);
```



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```
        break;

default:

    printf("\nInvalid input\n");

    }

    printf("Please enter the fourth snack you want to order=\n");

    type = getche();

    printf("\nEnter the quantity of the selected snack=\n");


    switch(type){

        case 'B':

            scanf("%d", &p1);

            break;

        case 'F':

            scanf("%d", &p2);

            break;

        case 'P':

            scanf("%d", &p3);

            break;

        case 'S':

            scanf("%d", &p4);

            break;

default:

    printf("\nInvalid input\n");

    }

}

printf("\tYour order\n");


//Burger= Rs.200; French Fries= Rs.50; Pizza= Rs.500; Sandwiches= Rs.150;

if(p1 != 0){
```

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```
printf("%d Burger of Rs %d\n", p1, p1*200);  
  
}  
  
if(p2 != 0){  
    printf("%d French Fries of Rs %d\n", p2, p2*50);  
  
}  
  
if(p3 != 0){  
    printf("%d Pizza of Rs. %d\n", p3, p3*500);  
  
}  
  
if(p4 != 0){  
    printf("\n%d Sandwiches of Rs. %d\n", p4, p4*150);  
  
}  
  
totalcost=200*p1+50*p2+500*p3+150*p4;  
  
printf("\n\tTotal Cost is %d",totalcost);  
  
printf("\nThanks for your order!\nVisit us again soon...\n");  
  
}
```

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## OUTPUT

 Select "D:\1st Semester\Programming Fundamentals-Lab\Assignment\Task 6\Task 6.exe"

```
The following is our menu
B=Burger cost Rs. 200
F=French Fries cost Rs. 50
P=Pizza cost Rs. 500
S=Sandwiches cost Rs. 150

How many types of snacks you want to order?
1, 2, 3 or 4?
4Please enter the first snack you want to order=
B
Enter the quantity of the selected snack=
2
Please enter the second snack you want to order=
F
Enter the quantity of the selected snack=
3
Please enter the third snack you want to order=
P
Enter the quantity of the selected snack=
1
Please enter the fourth snack you want to order=
S
Enter the quantity of the selected snack=
7

    Your order
2 Burger of Rs 400
3 French Fries of Rs 150
1 Pizza of Rs. 500

7 Sandwiches of Rs. 1050

    Total Cost is 2100
Thanks for your order!
Visit us again soon...

Process returned 0 (0x0)   execution time : 29.277 s
Press any key to continue.
```