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Section A11
IT department

Class 4 Lab questions

#1. WAP to find the largest between two numbers.

Code:

```c
#include <stdio.h>
int main()
{
    printf("Provide the numbers you want to compare:\n");
    float a285,b285;
    scanf("%f%f",&a285,&b285);
    if (a285<b285) {
        printf("The larger number is %f",b285);
    }
    else {
        printf("The larger number is %f",a285);
    }
    return 0;
}
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc compare.c
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide the numbers you want to compare:
754 -754
The larger number is 754.000000
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide the numbers you want to compare:
875 754
The larger number is 875.000000
PS C:\Users\KIIT\Desktop\Programming\class5>
```

#2. WAP to determine whether a year entered through the keyboard is a leap year or not.

Code:

```c
#include <stdio.h>
int main()
{
    printf("please provide the year:\n");
    int year285;
    scanf("%d",&year285);
    if ((year285%4==0 && year285%100!=0) || (year285%400==0))
    {
        printf(" %d is a leap year\n",year285);
    }
    else{
        printf("%d is not a leap year\n", year285);
    }
    return 0;
}
```

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Outputs:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc leap.c
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
please provide the year:
2000
 2000 is a leap year
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
please provide the year:
1000
1000 is not a leap year
PS C:\Users\KIIT\Desktop\Programming\class5>
```

#3. WAP to input any three integers distinct and display the greater of three integers.

Code:

```c
#include <stdio.h>
int main()
{
    printf("please provide any 3 distinct numbers\n");
    int a285,b285,c285;
    scanf("%d %d %d", &a285, &b285, &c285);
    if (a285!=b285 && b285!=c285 && a285!=c285)
    {
        if(a285>b285 && a285>c285)
            {
                printf("%d is the greatest number\n",a285);
            }
        else if (b285>a285 && b285>c285)
        {
            printf("%d is the greatest number\n",b285);
        }
        else if (c285>a285 && c285>b285)
        {
            printf("%d is the greatest numebr\n",c285);
        }

        else{
            printf("wow\n");
        }
    }
    else
    {
        printf("Your numbers must be distinct!\n");
    }
    return 0;
}
```

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Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc 3int.c
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
please provide any 3 distinct numbers
76 23 42
76 is the greatest number
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
please provide any 3 distinct numbers
65 87 65
Your numbers must be distinct!
PS C:\Users\KIIT\Desktop\Programming\class5>
```

#4. WAP to display the grade system of KIIT University based on total marks secured by a student in a semester. Use switch-case statement.

Code:

```c
#include <stdio.h>
int main()
{
    int mark285,tm285;
    printf("Provide your mark\n");
    scanf("%d",&mark285);
    tm285 = mark285/10;
    switch(tm285){
        case 9: printf("secured grade is O\n");
        break;
        case 8: printf("secured grade us E\n");
        break;
        case 7: printf("secured grade is A\n");
        break;
        case 6: printf("secured grade is B\n");
        break;
        case 5: printf("secured grade us C\n");
        break;
        case 4: printf("secured grade is D\n");
        break;
        default: printf("FAIL");
    }
    return 0;
}
```

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Output:

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc switch.c
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide your mark
78
secured grade is A
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide your mark
98
secured grade is O
PS C:\Users\KIIT\Desktop\Programming\class5>
```

#5. WAP to input any two integers, and provide a menu to the user to select any of the options as add, subtract, multiply, divide and display the result accordingly.

Code:

```c
#include <stdio.h>
int main()
{
    printf("which operation do you want to perform:\n");
    int a285,c285;
    printf("1 for addition\n");
    printf("2 for subtraction\n");
    printf("3 for division\n");
    printf("4 for multiplication\n");
    scanf("%d", &a285);
    int one285,two285;
    printf("please provide the numbers you want to operate with;\n");
    scanf("%d%d",&one285,&two285);
    switch(a285)
    {
        case 4: c285=one285*two285;
        printf("%d",c285);
        break;
        case 3: c285=one285/two285;
        printf("%d",c285);
        break;
        case 2: c285=one285-two285;
        printf("%d",c285);
        break;
        case 1: c285= one285+two285;
        printf("%d",c285);
        break;
        default: printf("NA");

    }
    return 0;
}
```

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Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc "op menu.c"
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
which operation do you want to perform:
1 for addition
2 for subtraction
3 for division
4 for multiplication
3
please provide the numbers you want to operate with;
80 10
8
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
which operation do you want to perform:
1 for addition
2 for subtraction
3 for division
4 for multiplication
1
please provide the numbers you want to operate with;
34 23
57
PS C:\Users\KIIT\Desktop\Programming\class5>
```

#6. WAP to display the grade system of KIIT University based on total marks secured by a student in a semester. Use else..if ladder statement.

Code:

```c
#include <stdio.h>
int main()
{
    printf("Provide your grade:\n");
    int gr285;
    scanf("%d",&gr285);
    if (gr285>=90)
    {
        printf("You have secured an O\n");
    }
    else if(gr285>=80 && gr285<90)
    {
        printf("you have secured an E\n");
    }
    else if(gr285>=70 && gr285<80)
    {
        printf("youb have secured an A\n");
    }
    else if(gr285>=60 && gr285<70)
        printf("you have secured a B\n");
```

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```
    else{printf("You have failed!!!");}
    return 0;
}
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> gcc grade6.c
PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide your grade:
87
you have secured an E
PS C:\Users\KIIT\Desktop\Programming\class5>
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\KIIT\Desktop\Programming\class5> ./a.exe
Provide your grade:
32
You have failed!!!
PS C:\Users\KIIT\Desktop\Programming\class5>
```