PROGRAMMING LAB ASSIGNMENT- 8

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ENROLLMENT NUMBER- 2020ITB028

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3 RD SEMESTER, 2 ND YEAR

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INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY (IIEST)

1)Write a single function that will take two arguments a, b to find a^b. The argument a can be either integer or floating point number.

/*

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CODE BY 2020ITB028_RUPAYAN THAKUR

*/

```c
#include <stdio.h>

#include <math.h>

#include <stdlib.h>


double power(void* a, int b, int ch)

{

    if(ch==1)

        return pow((*(int*)a), b);

    if(ch==2)

        return pow((*(float*)a), b);

}


int main()

{

    int ch;

    printf("Enter 1 for INTEGER input\nEnter 2 for FLOATING POINT input\n");

    scanf("%d", &ch);

    void* inp= malloc(4);

    int b;

    switch(ch)

    {
```

```c
        case 1: printf("ENTER AN INTEGER: ");

                scanf("%d", inp);

                break;

        case 2: printf("ENTER A FLOAT: ");

                scanf("%f", inp);

    }

    printf("ENTER THE SECOND INPUT: ");

    scanf("%d", &b);

    printf("%lf", power(inp, b, ch));


    return 0;

}
```

```
Enter 1 for INTEGER input
Enter 2 for FLOATING POINT input
1
ENTER AN INTEGER: 12
ENTER THE SECOND INPUT: 2
144.000000
PS C:\Users\Dell\Desktop\Programming lab>
```