

Tutorial 2
(Submission Deadline (for all batches): 9 PM 24-01-2024
mail solutions to cs252.tutorial@gmail.com

1. Write the IEEE 754 (i) single precision and (ii) double precision floating point representations (in hex) of number 7.45.
2. Write a C program to do the following:
 - I. Declare a float variable f and assign value 7.45 to it.
 - II. Print each byte of the value stored in f in hex.
 - III. Now declare a double variable g and assign value 7.45 to it. Print each byte of the value stored in g in hex.

Are these values same as the values calculated by you in Q1?

3. Find the directory where "stdio.h" file is stored. Open this file. Does it contain the signatures of printf function? Write the name of all variants of printf given in this file. How these variants differ from each other?
4. Create a file first.c and write the following code in it.

```
#include <stdio.h>
int x=7; int y=5;
int p2();
int main() {
    p2();
    printf("%d %d\n", x, y); }
```

Now create another file second.c and write the following code in it

```
double x;
int p2() { x = 2.5; }
```

Do the following to get an executable file. Execute "a.out" and report output.

gcc -c first.c to get first.o

gcc -c second.c to get second.o

gcc first.o second.o to get a.out