

School of Mathematical and Computational Sciences
Indian Association for the Cultivation of Science

Compiler Construction: COM 5202

Tutorial XII (16 April, 2025)

M. Sc Semester IV: 2024-2025

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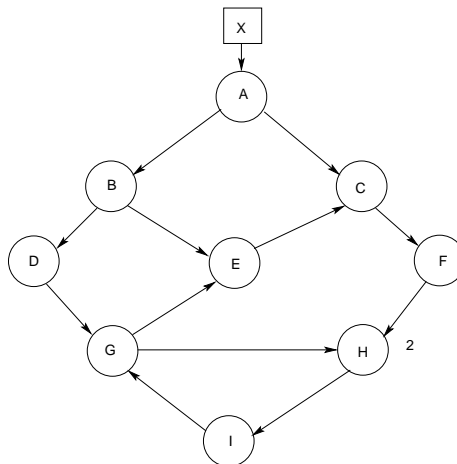
Exercise 1. Write 3-address code corresponding to the following functions.

```
/*
 * factorial.c
 */
#include <stdio.h>
int factorial(int n){
    if(n < 0) return -1;
    if(n == 0) return 1;
    return n * factorial(n-1);
}

int main(){
    int n;

    scanf("%d", &n) ;
    printf("%d! = %d\n", n, factorial(n));
    return 0;
}
```

Exercise 2.



What happens to the reference counts of the objects?

- (a) The pointer from A to B is deleted.
- (b) The pointer from X to A is deleted.
- (c) Node C is deleted.