

**ASSIGNMENT – 3**  
**CSE-231 OPERATING SYSTEMS**  
**REFRESHER MODULE**

**Total Marks: 20**

**Instructions:**

1. Each question is of 5 marks.
  2. All questions have to be attempted.
  3. Submit .pdf on gc (details will be shared soon) using nomenclature as  
    <RollNo>\_Assn3.pdf
  4. Last date of submission is 5 October.
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1. Write a bash script to print the calendar for the entire month, given a date.
  2. Write a bash script that takes two arguments as command-line arguments for the above arithmetic operations (add, sub, mul, div and exp). The first argument should be the name of the operations, i.e. -- 'add', 'sub', 'div', and 'exp'. The subsequent arguments should be two (or more) operands. Thus, depending upon the operations requested, you may call the appropriate function (bash subroutine), which should perform the corresponding arithmetic operation, using the supplied arguments.
  3. a. Implement the insertion and deletion operations in a binary search tree in C.  
    b. Implement a height-balanced binary search tree.
  4. [Bubble sort and selection sort] Write a program in C which has two functions bubble sort and selection sort. These functions both take an array as input, and depending on user's choice given on the console input, the corresponding function is used.