**Topic: Process Creation**

**Due on 07-September-2020, 04:15pm**

**Late Submission 08-September-2020, 04:15pm (Please not that assignments submitted late will not fetch full marks. Hence you are advised to submit your assignments by due date and time)**

**Mode of submission: MS Teams**

***Instructions:***

* You are required to upload the individual source (.c) files and one output file.
* You are required to follow proper naming convention for the files: ddmmyy119CS\*\*\*\*Q#.c.
* Apart from the source files you are also required to upload an output file containing the outputs of execution of all the assignments. The file name of the output file must be in the form: ddmmyy119CS\*\*\*\*Output.docx or .pdf
* The submitted programs will be checked for similarity through turnitin, before evaluation. So it is advisable not to borrow code from any source.

**Assignments:**

1. WAP to check
   * if both parent and child process have same program counter value immediately after a child is forked?
   * if variables (local and global) in the parent process are shared with child processes?
2. Write a C program to create a process chain like P1 →P2→ ... → Pn.

* Here *n* is a dynamically read input.
* Here → defines the parent-child relationship.

1. WAP to illustrate the use of fork() system call to create a FULL process tree of depth ‘D’ and degree N.

* The values of D and N are to be read dynamically.
* Each process (node) prints its parent ID.