

**Ahmedabad University**  
**School of Engineering and Applied Science**

**B.Tech (ICT), Semester - V**  
**Course: CSE341- Operating Systems Lab**  
**Assignment - 3, Shell Programming**

**Instructions**

- Write and test shell scripts/programs on Unix/Linux platform
  - Last date of submission: 31/08/2020
  - This assignment should be submitted on an individual basis and use LMS as a mode of submission.
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**grep command**

- 1) Search the following
  - a) Word “kind or wind” in all file of current directory
  - b) Sequence of three integers
  - c) Search for the word/s where ‘m’ should be the first character in the word/s.
- 2) Display names of all files that contains string “nice time”
- 3) Display line numbers of the files that contains the words “hello”
- 4) Search the string “nice time” in all the files in current directory and its subdirectories.
- 5) Display 5 lines in the file before and after the string “Good Morning”.

**File System Permissions**

- 1) How can you tell if a user has been active at the terminal recently?
- 2) Find difference between  
`$date ; who | wc` and `$(date;who) | wc`
- 3) Create a file named ‘nu’ that contains  
‘who | wc -l’ and run it on shell.
- 4) Write a shell script to delay execution of current process by 10 seconds.

## **awk command**

- 1) Print name and time of login sorted by time
- 2) Add line numbers to an input stream
- 3) Collect each line of input in a separate array element then prints them out in reverse order.
- 4) Write down a program which works like a scientific calculator and performs following operations
  - Floating point calculations
  - Trigonometric operations
  - Logarithms
  - Exponent