CS 303: Operating Systems Lab 1
August 16, 2019
Max Marks: 35

1. Explore the following Unix commands. For each command, briefly indicate what it does with an example (simple). Mention two to three options provided with the command, explaining their purpose.
Additionally, briefly indicate how you would do the same thing from any of the Windows OS.
[(0.75+0.25)*24 = 24 points]

a) pwd
b) cd
c) cp
d) ls
e) mkdir
f) rm
g) chmod
h) gzip
i) find
j) less
k) tail
l) top
m) wc
n) diff
o) kill
p) ifconfig
q) shutdown
r) which
s) cat
t) mv
u) grep
v) cut
w) history
x) echo

2. Explore vi Unix Editor**.** It is basic UNIX editor having three modes: INSERT mode, EDIT mode and COMMAND mode. Perform all the commands present in these three modes. Also, look at the cut & paste options provided by vi Unix editor with proper example. **[1+1+1+2 points]**

3. Answer the following question by exploring your system: **[3 points]**
a) How many cores does your CPU have? Write down the model, generation and clock frequency of your CPU. **[1 point]**
b) Write the capacity in Gb of your computer/Laptop RAM, Hard Disk and Graphics Card. Why would you prefer a graphics card while you could increase the capacity of your RAM? **[2 points]**

4. Run the *proc* command and collect the following information of your system. **[3 points]**
a) How much memory is your system having? See what fraction of it is free and write it down.
b) Find out number of context switches it has performed since bootup.
c) How many processes has it forked/started since bootup?.