

December 2021
Bachelor of Computer Applications (BCA) Examination

Third Semester
BCA-304 : UNIX OPERATING SYSTEM

Time 3 Hours]

[Max. Marks 50
[Min. Marks 17

Note : Attempt any two sub-parts of a question. All questions carry equal marks.

1. (a) Describe the architecture of UNIX Operating System. How it differ with other operating system (e. g. DOS / Windows etc.).
(b) Explain structure of file system in UNIX OS.
(c) Give syntax, expected output and applications of : (any four)
 - (i) who and who am i
 - (ii) tty and stty
 - (iii) more and od
 - (iv) pipes and tees :
 - (v) Sort and Unique
 - (vi) grep and egrep

2. (a) Explain the following environment variable :
 - (i) Shell
 - (ii) Path.
(b) Explain the mechanism of process creation using system calls in UNIX.
(c) Write the command for any two of the following :
 - (i) Today's date
 - (ii) List of files in the current directory
 - (iii) Use sed to delete all blank lines from a file named sample.

3. (a) What is scheduling ? Explain.
(b) Explain "while" and "for" loop in shell programming.
(c) Explain the different states a process can take in an UNIX Operating System.

4. (a) Explain the various approaches of setting file permissions in UNIX.
(b) Name and explain the modes of vi (editor) and how you can Switch from one mode to another.
(c) What is the significance of mounting and unmounting files in UNIX ?

5. (a) Explain the main function of System Administrator.
(b) What are the various types of filters ?
(c) Explain Unit System Communication.