

1058

Bachelor of Computer Application  
Fourth Semester  
BCA-403: Understanding UNIX  
(Old Syllabus 2016-17)

Time allowed: 3 Hours

Max. Marks: 90

*NOTE: Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I-IV.*

x-x-x

UNIT – I

- I. a) Define Operating System. What are the important features of UNIX that make it unique as an operating system? Briefly trace the history of UNIX.
- b) What is the difference between a process and a program? Explain various states of a process. (9,9)
- II. Compare and contrast:
- a) UNIX shell and UNIX kernel
- b) Parallel Systems and Distributed Systems (9,9)

UNIT – II

- III. a) Explain what the UNIX command 'chmod' does. What single 'chmod' command can you give that will remove all write access for others (not you or those in your group) for all files in your home directory - while leaving all other permissions on the files intact?
- b) What is the difference between redirection and piping? Design a pipe that sorts by login name the list of people currently using the system. (9,9)
- IV. Explain the following with examples:
- a) 'vi' text editor for creating files
- b) 'grep' command and its usefulness (9,9)

UNIT – III

- V. a) What is a UNIX File System? How does it work? List important directories in the UNIX file system.
- b) What is UNIX system administration and what does it entail? Explain the role and function of a system administrator in UNIX. (9,9)

P.T.O.

(2)

VI. Explain the following in the context of administering UNIX systems:

- a) Role of 'tar' facility for taking backups
- b) Monitoring system activity
- c) Recovering from system crash

(3x6)

#### UNIT – IV

VII. a) What are Shell Meta characters and in what situations would you use these characters? Explain by taking examples.

b) Write a shell script to find the sum of all positive even numbers less than 100. (9,9)

VIII. a) Write short notes on AWK pattern scanning and processing language.

b) What is Network Troubleshooting? Explain various commands in UNIX for network troubleshooting. (9,9)

#### UNIT – V

IX. Attempt the following:-

- a) How is Windows OS different from UNIX OS?
- b) An operating system is a virtual machine. (True/False)
- c) What do you mean by a background process?
- d) The UNIX command for changing the user password is \_\_\_\_\_.
- e) How can you create text files with cat command?
- f) You have to compile a shell script before you can run it. (True/False)
- g) The command for shutting down a UNIX system is \_\_\_\_\_.
- h) What is the size of an IPv4 address?
- i) What is the full form of AWK?

(9x2)

x-x-x