

6

END TERM EXAMINATION

FIFTH SEMESTER [BCA] DECEMBER 2010

Paper Code: BCA305

Subject: Linux Environment

Paper ID: 20305

Time : 3 Hours

Maximum Marks : 75

Note: Attempt all questions including Q.1 is compulsory. Internal choice is indicated.

- Q1 Explain briefly:- (5x3=15)
- ~~(a)~~ chmod
 - ~~(b)~~ sort
 - (c) grep
 - (d) pipes
 - ~~(e)~~ interrupt handling

UNIT-I

- Q2 Attempt **any three** parts from the following:- (3x5=15)
- ~~(a)~~ What is the difference between inode structure and file structure? Explain file structure in detail.
 - (b) What is a system call? How does it work?
 - (c) How can we convert linear address to physical address in architecture independent model?
 - ~~(d)~~ Why virtual memory area is needed? What are the components of it?

UNIT-II

- Q3 Attempt **any three** parts from the following:- (3x5=15)
- (a) How debugging can be done in LINUX? Explain?
 - (b) Write short notes on:-
 - (i) Message Queues
 - (ii) Shared Memory
 - (c) What is Socket? How data can be exchanged using sockets?
 - (d) Explain data structure provided by LINUX for semaphores.

UNIT-III

- Q4 Attempt **any three** parts from the following:- (3x5=15)
- (a) How file system mounting can be done in LINUX?
 - (b) What are the different operations an inode structure has? Explain any four operations?
 - (c) What is the difference between Proc and Ext2 file systems?
 - (d) Explain Kernel daemon process.

UNIT-IV

- Q5 Attempt **any two** parts from the following:- (2x7.5=15)
- (a) What is multiprocessing? Explain symmetric multiprocessing in detail.
 - (b) Write short notes on the following:-
 - (i) Kernel Initialization
 - (ii) Scheduling
 - (c) What are the problems with multiprocessing system? Explain.