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## END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY-JUNE 2017

Paper Code: BCA-306

Subject: Linux Environment

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory.

Q1 Answer following in brief (any five):

(5x5=25)

- (a) Linux initially was developed for intel X86 architecture but has been ported to other hardware platform than any other Operating System. Elaborate this statement.
- (b) Why Linux Operating system is Virus free? Explain with reason.
- (c) What is BASH? What is the basic difference between BASH and DOS?
- (d) What is an MX record? What is a zombie?
- (e) Does the Ctrl+Alt+Del key combination work on Linux? Justify.
- (f) In Linux, what names are assigned to the different serial ports? Give example.

- Q2 (a) What is the core of Linux Operating System? (6)  
(b) What is the basic difference between UNIX and Linux Operating System? (6.5)

- Q3 (a) What is LILO? (6)  
(b) What is an INODE? Make a block diagram of I-node and explain various fields. (6.5)

- Q4 (a) What is a swap space? Why it is used? (6)  
(b) What is the advantages of open source? What is the importance of the GNU project? (6.5)

- Q5 (a) Describe the root account. What is CLI? (6)  
(b) How can you find out how much memory Linux is using? What is an MX record? Describe the Linux boot-up sequence. (6.5)

- Q6 (a) What are the various permission types for accessing a file? How it can be examined. Explain symbolic method and numeric method for changing permissions. (6)  
(b) Explain the functioning of following commands with example: cd, mv, copy, rm, cat, ps, top, pstree, nice, renice. (6.5)

- Q7 (a) Differentiate between following in brief: (6.5)  
(i) symbolic links and hard links  
(ii) mount and umount command  
(b) Explain in brief following shell scripts commands: grep, sed, awk. (6)

- Q8 (a) Explain the various environment variables in brief. What do you understand by sticky bit for a directory? Explain. (6)  
(b) Explain linux Kernel in brief. How the kernel is installed? Explain the kernel process management in brief. (6.5)

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