*(Please write your Exam Roll No.)* *Exam Roll No. .....*

# END TERM EXAMINATION

**SIXTH SEMESTER [BCA] MAY- JUNE 2018**

***Paper Code: BCA-306*** ***Subject: Linux Environment***

***Time: 3 Hours*** ***Maximum Marks: 75***

***Note: Attempt any five question including Q.No1 which is compulsory.***

Q1 Answer following in brief **(Any five)** **(5x5=25)**

(a) Why is Linux more portable than other operating system?

(b) What is Inode in Linux? Differentiate between Hard Link and soft Link.

(c) Explain the following process related commands.
(i) PS (ii) TOP (iii) Nice

(d) Differentiate between standard Input and Output.

(e) What is shell? What is difference between BASH and KSH?

(f) What is the role of the free software foundation in the development of Linux? Who developed the Linux kernel?

Q2 (a) What is ordinary file system? Difference between ext3 & ext4. **(8)**

(b) Explain the following commands. **(4.5)**
(i) whoami (ii) man (iii) bc

Q3 (a) Describe briefly the UNIX architecture. Explain any four directory structure. **(8)**

(b) Explain the navigation commands. **(4.5)**
(i) mv (ii) rm (iii) cat

Q4 (a) What is an archieve file. How do you create archives? Write the advantages of using gzip & bzip2 . What is tar, gunzip? **(6.5)**

(b) Define the three modes of vi. How you can switch from one mode to another? **(6)**

Q5 (a) Explain the changing permissions & default permission. How do you copy the file? **(8)**

(b) What are pipes? Write some pipe commands. **(4.5)**

Q6 (a) Explain the following commands: **(7.5)**
(i) tail (i) wc (iii) init o (iv) sort (v) diff

(b) Which two environment variables are set by reading/etc/passwd? **(5)**

Q7 (a) What is the difference between an interactive and non-interactive shell? Define significant features in an interactive shell. **(7.5)**

(b) Find the special permissions of SUID and SGID. **(5)**

Q8 (a) What is the process of Linux? Explain the role of process descriptor in Linux. **(6)**

(b) What is system call? Explain any four system calls in Linux. **(6.5)**

Q9 (a) Explain the process state in Linux. **(6)**

(b) Explain the Linux Kernel in brief. Explain the Kernel debuggers. **(6.5)**

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