# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

## B.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

FIFTH SEMESTER – APRIL 2017

### CS 5406/CA 5406- LINUX AND SHELL PROGRAMMING

Date: 03-05-2017        Dept. No.            Max. : 100 Marks

Time:01:00-04:00

## SECTION-A

**ANSWER ALL THE QUESTIONS:**          **(10 X 2 = 20)**

1. Define Shell. Name any two shells in Linux.
2. Write the command to make a script executable.
3. Illustrate for loop with wildcard expansion.
4. What is the purpose of . (dot) command?
5. State the modes used in Open system call.
6. Write the functionality of chown( ).
7. Enumerate the error constants in Pipe( ).
8. Write the code to create a named pipe My_Fifo.
9. Differentiate the two types of sockets.
10. What are binary semaphores?

## SECTION-B

**ANSWER ALL THE QUESTIONS**:          **(5 X 8 =40)**

11. a) Illustrate and explain the creation and execution of shell scripts.
(OR)
     b) Explain about Pipes and Redirections with examples.

12. a) Explain case control statement with examples.
         (OR)
     b) Explain Arithmetic Expansion with an example.

13. a) Write a program to copy the contents of FILE_IN to FILE_OUT in 1K blocks.
         (OR)
     b) Discuss in brief about lseek( ) with its syntax and example.

14. a) Explain process pipes with popen( ) and pclose( ) functions.
         (OR)
     b)Discuss the importance of named pipes and its creation.

15. a) Explain about Message queues and its associated functions.
         (OR)
     b) Discuss about the functions involved in creation and naming of a socket.

## SECTION-C

**ANSWER ANY TWO QUESTIONS:**          **(2 X 20 = 40)**

16. (a) Discuss in brief about the architecture of Linux with a neat diagram.   (10)
   (b) Describe about the file structure in Linux.   (10)

17. (a) Elaborate the operations of Low level file access with its associated system
     calls.   (10)
   (b) Discuss about the function of pipe call with a sample program.   (10)

18. (a) Describe Shared Memory and its associated functions in detail.   (10)
   (b) Discuss about Standard Input Output library functions with its syntax.   (10)

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