

Roll No .....

**MCA-502****M.C.A. V Semester**

Examination, November 2018

**Unix and Shell Programming***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Explain architecture of Unix Operating system. Draw the block diagram of system Kernel.  
b) What are the various fields of buffer header? Explain.
2. a) How inode is assigned to a new file? Explain also write its algorithm.  
b) Write algorithm for conversion of path name to an inode.
3. a) Explain about interprocess communication.  
b) Explain sleep process creation and termination.
4. a) Mention different loop control structure in that used in Unix shell programming.  
b) Write a shell script using "grep" command.
5. a) What are built in variables in AWK? Write one AWK script.  
b) Discuss the features of LINUX and various flavors of LINUX.

6. a) Explain the structure of PERL.  
b) Write short notes on  
i) Chop function  
ii) Socket programming
7. a) Write an algorithm for allocation of disk block.  
b) Draw the diagram for components of process.
8. Explain commands with syntax and example  
a) AT  
b) CORN  
c) PIPES  
d) BATCH

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