

Code: 9A12601

**R09**

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2015/2016

**LINUX PROGRAMMING**

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Explain the various backup utility commands with their syntax and example.  
(b) Find out the occurrence of three consecutive and identical word characters (like mmm or nnn) by using sed.
- 2 (a) Write a shell script to find whether the given number is Armstrong or not.  
(b) Present a detailed note on shell functions.  
(c) What is the role of here documents in shell programming?
- 3 Explain the following system calls:  
(a) Create.  
(b) Read.  
(c) Write.  
(d) Close.
- 4 (a) What is an orphan process? Explain its importance in Unix programming?  
(b) List the advantages of creating a new process.  
(c) Write a short note on signal generation & handling and kernel support for signals.
- 5 (a) Explain about client / server interaction by using semaphores with a neat diagram.  
(b) Write a program that locks resources by named pipes.
- 6 (a) Write and explain the procedure to interact a client process with server process by using semaphores.  
(b) With the help of syntax and example, explain any three APIs for shared memory.
- 7 (a) Write a C program to print the message by only one thread at a time by using message.  
(b) Explain about thread structure and uses.
- 8 Describe briefly about socket system calls for connection oriented protocol and connectionless protocol.

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