

Code No: R32054

R10

Set No: 1

III B.Tech. II Semester Regular Examinations, April/May -2013

UNIX PROGRAMMING

(Computer Science and Engineering)

Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the following commands with suitable examples.
umask, tar, chmod, mkdir, rmdir, chdir, chown, cpio, sort.
(b) Explain about the features of UNIX. [8+7]
2. Explain the following:
(a) Shell meta characters
(b) shell variables
(c) shell commands [5+5+5]
3. (a) Explain about the UNIX file system structure.
(b) Explain the following commands with suitable examples.
umask, chmod, mkdir, rmdir, chdir, chown, cpio, sort. [8+7]
4. (a) Define process. Explain about process structure.
(b) Explain in detail about zombie process. [8+7]
5. (a) Explain in detail about interrupted system calls.
(b) Explain in detail about abort and sleep functions. [8+7]
6. Briefly explain about the following IPCs:
(a) FIFO
(b) Pipes
(c) Name spaces [5+5+5]
7. (a) Explain in detail about Advisory Locking versus Mandatory Locking.
(b) Explain in detail about File Locking versus Record Locking. [8+7]
8. List the comparison of Sockets, TLI, Message Queues and FIFO's. [15]



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UNIX PROGRAMMING

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Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain in detail about file permissions and process utilities.
(b) Explain in detail about backup utilities. [8+7]
2. (a) Explain in detail about pipes and input Redirection.
(b) Write a shell script to find out whether a given number is prime number or not. [8+7]
3. (a) Briefly explain about the following system calls:
open, create, close, read and write.
(b) Briefly explain about the following system calls:
lseek, symlink, stat, octl, chmod, chown. [8+7]
4. Explain the following system calls with clear syntax and example:
(a) fork() (b) wait() (c) exec() [8+7]
5. (a) Explain in detail about interrupted system calls.
(b) Explain in detail about alarm and pause functions. [8+7]
6. Briefly explain about the following IPCs:
(a) Streams and Messages.
(b) Name spaces [8+7]
7. Define Semaphore. Explain in detail about kernel data structures for a Semaphore Set. [15]
8. Explain in detail about Socket system calls for Connection Oriented Protocol. [15]

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Set No: 3

III B.Tech. II Semester Regular Examinations, April/May -2013

UNIX PROGRAMMING

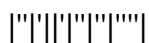
(Computer Science and Engineering)

Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain in detail about disk utilities and text processing utilities.
(b) Explain in detail about Unix file system with neat diagram. [8+7]
2. (a) Define Shell. Explain in detail about shell responsibilities.
(b) Write a shell program to arrange three numbers in ascending order. [8+7]
3. Define System call. Explain in detail about Directory handling System calls. [15]
4. (a) What is an orphan process? Write a program to illustrate orphan process.
(b) Explain various exit statuses with an example program. [8+7]
5. Explain the following with example:
(a) Process Creation
(b) Process Termination
(c) Signal function
(d) Reliable signals. [15]
6. (a) Explain the advantages of FIFOs over pipes.
(b) Write a C program to illustrate two way communication using FIFOs. [8+7]
7. Explain in detail about Locking routines using Semaphores. [15]
8. Explain in detail about Socket system calls for Connectionless Protocol. [15]



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Set No: 4

III B.Tech. II Semester Regular Examinations, April/May -2013

UNIX PROGRAMMING
(Computer Science and Engineering)

Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain about unix file structure.
(b) Explain about the following commands:
ulimit, ps, finger, uniq, grep, awk, tar. [8+7]
2. (a) Explain the working environment or built-in variable of shell
(b) Write a shell program to arrange three numbers in ascending order. [8+7]
3. Define System call. Explain in detail about file and directory maintenance System calls. [15]
4. (a) Explain in detail about Zombie process and Orphan process.
(b) Differentiate between fork() and vfork(). [8+7]
5. (a) Explain in detail about unreliable signal.
(b) Explain in detail about kill and raise functions. [8+7]
6. (a) Explain the advantages of FIFOs over pipes.
(b) Write a C program to illustrate two way communication using FIFOs. [8+7]
7. Define Semaphore. Explain in detail about various Semaphore System Calls. [8+7]
8. Explain in detail about Elementary Socket System Calls. [15]
