Total No. of Questions : 10] [Total No. of Printed Pages : 3

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IT–601(N)

B. E. (Sixth Semester) EXAMINATION, June, 2010

(New Scheme)

(Information Technology Engg. Branch)

UNIX AND SHELL PROGRAMMING

[IT – 601(N)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit – I

1. (a) Explain the kernel and buffer cache architecture of UNIX O/S with neat diagram. 10

   (b) Name five administrative functions that can't be performed by a non-privileged user. 10

2. (a) Describe briefly the UNIX architecture explaining the role played by the kernel and shell in sharing the work load. 10

   (b) What is buffer cache ? Give the advantages and disadvantages of buffer cache. 10

Unit – II

3. (a) Explain the difference between the following : 10

   (i) ls-l and ls-lt

   (ii) ls-lu and ls-lut

P. T. O.

(b) Explain the significance of fast symbolic links and dangling symbolic links. 10

4. (a) Explain with reference to the dot and * what the following commands do : 10

(i) Chown – R project.

(ii) Chgrp – R project*

(b) Explain the *four* components of file systems briefly. 10

Unit – III

5. (a) Explain what daemon processes are and their behavioural pattern. Name *three* examples of daemons and tasks they perform. 10

(b) Explain *five* important process attributes that are inherited by the child from its parents. 10

6. (a) What are signals ? Name a way of generating a signal from the keyboard. Why should we use kill with signal names rather than their numbers ? 10

(b) Explain the following scheduling commands : 10

(i) at

(ii) batch

(iii) cron

(iv) time

Unit – IV

7. (a) Explain Bourne shell and C shell briefly. 10

(b) Write a script that checks each minute and reports on who logs in and who logs out. 10

8. (a) Explain the logical and conditional operators briefly. 10

(b) Devise a script that accepts two directions named A1 and A2, and deletes those files in A2 which are identical to their namesakes in A1. 10

Unit – V

9. (a) Explain the string handling functions of Perl. 8

(b) Implement the folowing commands in awk : 12

(i) head – n 5 foo

(ii) sed – n, '5, lop' foo

(iii) tail + 20 foo

10. Write brief notes on the following : 20

(i) Linux structure

(ii) Chop ( )

(iii) Socket programming

(iv) TELNET