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SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Information Technology
Second Year, Second Semester Examination – 2019
HNDIT2402 Free and Open Source Systems

Instructions for Candidates:
Answer four (4) questions including Question 1

No. of questions : 5
No. of pages : 4
Time : 2 hours

Question 1.

1. Select the most appropriate answer

1. Which of the following is not a method for installing CentOS in your system?

- a) Dual boot
- b) Vim
- c) Virtual box
- d) single boot

2. Which one is the most widely used Open Source License?

- a) General public license
- b) FreeBSD license
- c) Mozilla public license
- d) Apache software license

3. What is the command to see the currently logged in username?

- a) groups
- b) whoami
- c) W
- d) who

4. What is the command is used to change permission of files and directories?

- a) set
- b) chmod
- c) mv
- d) chgrp

5. Which represents the user's home directory?

- a) /
- b) .
- c) ~
- d) @

7. How to display IP address in your computer?

- a) getip
- b) ifconfig
- c) ipconfig
- d) ping

7. What does "yum" command stand for?

- a) Yellow Unix Multiplexer
- b) Yellowdog updater Modified
- c) Yellow Uninstall Manager
- d) Yellow Update Manager

8. Which one is not a distribution of Linux?

- a) Longhorn
- b) Suse
- c) Ubuntu
- d) Knoppix

9. What is the default shell?

- a) bash
- b) lash
- c) rash
- d) nash

10. Using the _____ account of a UNIX system, one can carry out administrative functions.

- a) root
- b) client
- c) administrative
- d) user

(2 x 10 = 20 marks)

2. Select the suitable word and filling the blanks

(DHCP, df, uptime, ctrl+L, cpuinfo)

- i. Shows current logging time
- ii. Clears the terminal screen
- iii. Displays CPU information
- iv. Shows disk usage
- v. Automatically configures IP addresses of the host computer(5 marks)

(Total 25 marks)

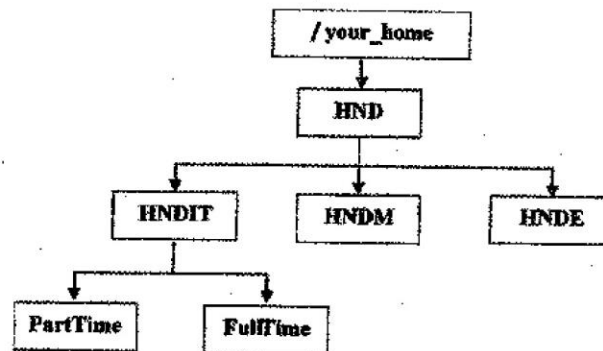
Question 02

- i. Briefly explain "Free and Open Source Software" (3 marks)
- ii. Write three (03) features of Linux operating system (3 marks)
- iii. Explain FOSS business model (4 marks)
- iv. Write three (03) differences between open and close source software (6 marks)
- v. Explain Linux shell and kernel using diagram (9 marks)

(Total 25 marks)

Question 03

- i. Give three examples for shell (3 marks)
- ii. Briefly explain file management commands given below (5 marks)
 - a. `cd ..`
 - b. `mv`
 - c. `mkdir`
 - d. `ls`
 - e. `cp`
- iii. Complete the following diagram with Linux commands (Assume that you are at your_home directory) i.e. `[your_home@localhost ~]$ pwd`
`/home/your_home`



- a. Using Linux commands make the above directory structure (5 marks)
- b. Make the file "payment.txt" inside PartTime directory (2 marks)
- c. Make the file "attendance.txt" inside FullTime directory (3 marks)
- d. Open the file "payment.txt" with vi editor and insert payment details and save the file (5 marks)
- e. Copy payment.txt file into FullTime directory (2 marks)

(Total 25 marks)

Question 04

- i. State two reasons why "Linux is better than Windows operating system" (2 marks)
- ii. Briefly explain the attributes used in the file and directory permissions? (4 marks)
- iii. Write Linux shell command to display user related details (4 marks)
 - a. How to display current users' information?
 - b. How to display all user logged in?
- iv. What is the purpose of process management in Linux Operating System? (5 marks)
- v. Write the command to display the current file permission for the file student.txt as follows.

`- r w - r w - r - -`

(10 marks)

Write the commands to complete following tasks

- a) Add the execute permission for group
- b) Add the write permission for guests.
- c) Remove write permission from all.
- d) Change to new owner Gihan

(Total 25 marks)

Question 05

- i. List two file compression commands (2 marks)
- ii. Write four (04) features of proxy server (4 marks)
- iii. Write four (04) important features of SAMBA server (4 marks)
- iv. Briefly explain five (05) functionality of DHCP (5 marks)
- v. Write down the commands to complete the following activities (10 marks)
 - a. Install squid server
 - b. Open squid configuration file
 - c. Block the www.youtube.com
 - d. Start the squid server
 - e. Check the status of squid server

(Total 25 marks)

2.

Q1

