06130T4CSC

COMPUTER SCIENCE LEVEL 6

ICT/OS/CS/CR/02/6/A

ICT/OS/CS/CR/02/6/B

Understand Operating Systems

July/August 2025

TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

PRACTICAL ASSESMENT

DURATION: TO RUN THROUGHOUT THE TRAINING

INSTRUCTIONS TO CANDIDATE:

1. In this practical assessment, you are required to perform the following tasks:
    i. *Install Windows operating system*
    ii. *Gather System Information*
    iii. *Perform System performance*
    iv. *Perform disk storage management*
    v. *Configure file permissions*
2. You have been provided with the following resources:
    i. *A working computer*
    ii. *Windows 10 operating system set-up in a storage medium*
    iii. *A 1-minute video*
    iv. *Internet access*

v. *Operating System -on a bootable Flash drive*

Create a folder on the desktop and name in CDACCPRAC

All your screenshots should be saved in "CDACCPRAC" folder

Task 1: Install Windows Operating System

i. Check system requirements
ii. Take a screenshot and save it as '*SystReq'*
iii. Back up data
iv. Format the computer to install the operating system provided in the bootable disk/flash disk.

Task 2: Configure the computer

i. Set up a primary user account ***NB:(do not set a password)***

Task 3: Gather System Information

v. Use the Run dialog box to gather detailed hardware and software information.
vi. Take a screenshot and save it as *SysInfo*
vii. Use the Command prompt to gather software system information
viii. Take a screenshot and save it as *SysInfo1*

Task 4: Manage Process

i. Observe process information using the task manager
ii. Document:
    a) Information for at least 3 processes
        - The name of the process
        - PID (Process Identifier)
        - Status
        - User name: The user account under which the process is running.
        - CPU: The percentage of CPU resources the process is currently using.
        - The amount of physical RAM the process is currently using.
        - Disk: The rate of disk I/O (read/write operations) the process is performing.
    b) A least 3 resource intensive processes
    c) Analyze start-up processes and disable 3 unnecessary start-up processes

iii. End a non-responsive task

Task 5: Monitor System Performance

i. Use the task manger to monitor performance of the CPU, Memory and Disk
ii. Take a screenshot of each after 30 seconds of observation.
iii. Save each screenshot as *perfcpu, perfmem* and *perfdisk* respectively.
iv. Close all applications, observe the performance of the CPU, Memory and Disk
v. Take a screenshot of each after 30 seconds of observation.
vi. Save each screenshot as *perfcpu1, perfmem1* and *perfdisk1* respectively.
vii. Open 3 applications, observe the performance of the CPU, Memory and Disk
viii. Take a screenshot of each after 30 seconds of observation.
ix. Save each screenshot as *perfcpu2, perfmem2* and *perfdisk2* respectively.

Task 6: Manage Input/Output

i. Use the resource monitor to observe input/output activity
ii. Document at least 3 processes currently reading from or writing to disk
iii. Take a screenshot and save as *InputOutput*
iv. Copy a video (***of about 1 minute***) from 1 location of the hard disk to another
v. Observe the disk I/O resource monitor while the file is being copied on the disk tab
vi. Take a screenshot and save as *InputOutput1*
vii. Document at 3 process activities in the network tab sending and receiving data.
viii. Download a large video from the internet
ix. Observe the network activity while Download is in process
x. Take a screenshot and save as *InputOutput2*

Task 7: Perform disk storage management

i. Identify the devices and drives available in the computer system. Take a screenshot of the devices and drives and save it as *devdri*
ii. Explore the properties of each partition, take a screenshot and save it as *prodri*
iii. Use the shrink tool to create and format a new partition. Name the partition 'NEW STORAGE'. Take a screenshot and save as *NewStorage*
iv. Use the Run dialog box to clean up temporary files. Take a screenshoot and save it as *Tempfiles*

Task 8: Configure users and file permissions

i. Create a new user account named 'CANDIDATE'

ii. Lock this account with a password Cdacc@July2025.

iii. Set file permissions to read only though the GUI

iv. Take a screenshot and save as '*fileperm'*

v. Configure password policies; minimum length (6 Characters), compulsory inclusion of numbers and symbols, screenshot the window.

vi. Take a screenshot and save as '*fileperm1'*