kasneb

CICT PART I SECTION 2

OPERATING SYSTEMS - PRACTICAL

WEDNESDAY: 27 November 2019.   **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

Ensure that you are provided with a computer, a flash disk and printing materials.

Additional instructions:
1. Save all your work (including theory answers where necessary) in the flash disk provided and in a folder bearing your registration number.
2. Work on each question should be saved in the subfolder contained in the folder created in number 1 above. The name of the subfolder should correspond to the question number.
3. Your registration number MUST appear as a header on every printout containing your answers.
4. You must indicate the number of the question answered on the header created in number 3 above.

Note: The information in numbers 1-4 above must be computer generated.

At the end of the examination duration, you should hand in to the invigilator(s):

(a)   The flash disk containing your work.
(b)   All printed work.
(c)   All unused printing paper(s).

QUESTION ONE
Create a word processor document named "Question One". Use the word processor document to save your answers to questions (a) to (e) below:

(a)   On pressing the power button of a computer, it keeps on looping over the start up process where it appears to be starting and then restarts.

   Explain how you would solve the above problem.   (2 marks)

(b)   Compare between "paging" and "segmentation" memory management techniques.   (4 marks)

(c)   On your computer:
   (i)   Make wordpad a default program.   (2 marks)
   (ii)   Choose files whose extensions are .docx or .doc to open by default.   (2 marks)

   Capture screenshots of the steps followed to accomplish the above tasks.

(d)   (i)   Create a management console file called "OS Prac November 2019". Change the console mode to user mode – full access.

         Capture the screenshots showing how you accomplished the above tasks.   (3 marks)

   (ii)   Add the following snap-ins in the console created in (d) (i) above:

      •   Authorisation manager.
      •   IP security monitor.
      •   Local users and groups to manage local computer.
      •   Print management without print server.

         Capture and save a screenshot of the console showing all the added snap-ins.   (4 marks)

(e)   Configure your default operating system's time to display recovery option when needed to 30 seconds.

   Capture screenshots showing how this task was completed.   (3 marks)

   Print "Question One" document.

(Total: 20 marks)

QUESTION TWO

Create a word processor document named "Question Two" and use it to save your answers to the following questions:

(a)   (i)   Explain the term "dual-boot".   (1 mark)

      (ii)   Highlight three reasons why one would require to do a dual-boot.   (3 marks)

(b)   A client reports that his wireless network is dropping connections during peak hours.

      Explain the first option that you would take to troubleshoot the above problem.   (2 marks)

(c)   Ensure that your computer's device installation settings allow windows to download driver software and realistic icons automatically.

      Capture a screenshot showing how this is done.   (3 marks)

(d)   Capture a screenshot showing your computer's monitor adaptor information.   (2 marks)

(e)   Assume your company employs sales representatives.

      Create a user account for a sales representative called Mary.

      Capture a screenshot showing the above account.   (2 marks)

(f)   (i)   Use the Registry to give the sales representative Mary created in Question Two (e) above full control and read rights.

          Capture all the screenshots showing how this task was completed.   (3 marks)

      (ii)   Prepare a backup of your computer's Registry and call it compregbackup.reg.

          Create a folder named "backup1" and save compregbackup.reg in this folder.

          Capture all the screenshots showing how the above task was completed.   (4 marks)

      Print "Question Two" document.

                                                    (Total: 20 marks)

QUESTION THREE

Create a word processor document named "Question Three" and use it to save your answers to the following questions:

(a)   (i)   Distinguish between "kernel mode" and "user mode" as used in operating systems.   (2 marks)

      (ii)   Explain the terminology "hypervisor" as used in operating systems virtualisation technology.   (2 marks)

(b)   Describe two types of interrupts as used in operating system interface.   (2 marks)

(c)   Each process running in Windows operating system is assigned a unique process ID and a process name.

      (i)   Customise the task manager to always display the process ID and the process name.

          Capture and save the screenshots showing the results of the task.   (4 marks)

      (ii)   Capture the screenshot showing how to customise resource usage for memory by values in the task manager.   (2 marks)

(d)   Configure your computer browser setting as follows:

      (i)   To always warn the user when closing multiple tabs.   (2 marks)

      (ii)   Open links from other programs in a new tab in the current window.   (2 marks)

      Capture and save screenshots showing the results of each of the above configurations.

(e)   Open the directory showing all the temporary files of the currently logged user.

Capture and save the screenshot showing the results of the above task.   (2 marks)

(f)   Customise your computer to always delete the browsing history on exit.

Capture and save the screenshot showing the results of the above task.   (2 marks)

Print "Question Three" document.

(Total: 20 marks)

QUESTION FOUR

Create a word processor document named "Question Four". Use the word processor document to save your answers to questions (a) to (d) below:

(a)   (i)   Outline two basic types of clean installation procedure when installing windows operating system.
                                                                                    (2 marks)

(ii)   Company XYZ has been running its applications on a Windows 8 platform and wishes to upgrade to Windows 10 platform.

As a software expert, advise the company's ICT manager on the factors the company should consider before purchasing the windows 10 operating system.   (4 marks)

(b)   Configure your operating system to enable disk quota management and log events when a user exceeds the quota limit.

Capture and save a screenshot showing the results.   (3 marks)

(c)   Capture and save screenshots in each case to illustrate how you would perform the following tasks:

(i)   Set DHCP client service to log on as a local system account and to allow service to interact with the desktop.   (3 marks)

(ii)   Turn on mouse keys when controlling the mouse with the keyboard.   (2 marks)

(iii)   Change your computer performance settings to adjust for best performance.   (2 marks)

(d)   Configure your power setting to create a high performance power plan called "Kasneb plan " and set the plan to put the computer to sleep after 45 minutes.

Capture and save the screenshot showing the above results.   (4 marks)

Print "Question Four" document.

(Total: 20 marks)

QUESTION FIVE

Create a word processor document named "Question Five". Use the word processor document to save your solutions to questions (a) to (e) below:

(a)   (i)   Distinguish between a basic disk volume and a dynamic disk volume.   (2 marks)

(ii)   Dynamic disks supports a number of volumes.

Describe four of the above volumes.   (4 marks)

(b)   (i)   Create a folder named "Kenya" on the desktop of your computer.   (1 mark)

(ii)   Share the folder created in (b) (i) above using its name as the share name and limit the number of simultaneous users to 11.

Capture and save the screenshots showing how you completed the above tasks.   (2 marks)

(c)   Using an appropriate utility, capture and save a screenshot showing how you would enable windows script host feature on a computer that reports a message that the feature is disabled.   (3 marks)

(d)   Capture and save screenshots in each case to illustrate how you would perform the following tasks:

   (i)   Configure the computer system to safe boot option for active directory repair.   (2 marks)

   (ii)   Configure your computer not to hide protected operating system files.   (2 marks)

(e)   Capture and save screenshots showing how you would accomplish the following:

   (i)   Turn off the display after 6 minutes.   (2 marks)

   (ii)   Set minimum processor state to 15%.   (2 marks)

   Print "Question Five" document.

(Total: 20 marks)

....