Level 4 Certificate in Unix Networking (188) 119 Credits

Unit: Introduction to Solaris **Exam Paper No.:** 4	**Guided Learning Hours:** 200 **Number of Credits:** 20
Prerequisites: Knowledge in Windows operating system.	**Corequisites:** A pass or higher in Certificate in Networking or equivalence.
Aim: The Introduction to Solaris unit provides instruction in the key features and capabilities of Sun's flagship Solaris Operating System (now owned by Oracle Corporation since Jan 2010). Topics include file and directory management, controlling the user work environment, installing the Solaris operating system and user management. In addition, this unit explains fundamental command-line features of the Solaris Operating System, including file system navigation, the *vi* text editor, file permissions, command shells, basic network usage, and reading shell scripts. This unit provide learners with the skills they need to install and begin using the Solaris Operating System. The aim of the unit is to teach learners how to use fundamental UNIX commands and basic Solaris commands. This unit is intended for learners new to Sun's Solaris operating system. Learners will learn functions of the shell, file system navigation, Solaris editors, file commands (including **ls**, **cat**, **rm**, **mv**, **cp** and **ln**), additional commonly used commands (including **grep**, **od** and **pr**) as well as learning user communication tools such as **mailx**. Upon completion of this unit, learners will be able to: log in and out of the system; navigate through the UNIX file system; manipulate files; secure file permissions; use basic network commands; search for file names and strings; edit files using the '*vi*' editor; use shell productivity features; use shell productivity features; use the '*vi*' editor; use mailx to send mail; navigate the hierarchical file system; set file permissions; use the vi visual editor; use UNIX shells and understand Solaris network facilities.	
Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.
Special Requirements: The unit requires a combination of lectures, demonstrations, discussions, and hands-on labs.	

Intended Learning Outcomes:	**Assessment Criteria:**
1. An overview; the history of Solaris operating system delivering enterprise-grade performance, stability and security.	1.1 Define proprietary operating system 1.2 Analyse Solaris commands and prompts 1.3 Explain advantages and disadvantages of Solaris 1.4 Analyse the history of Solaris
2. The process of logging into Solaris System and the files used by the operating system.	2.1 Examine and identify Solaris graphical login 2.2 Examine and outline command line login 2.3 Outline how Solaris stores information in files and directories 2.4 Analyse Solaris files and directories 2.5 Describe file manipulation functions 2.6 Demonstrate how to create directories 2.7 Explain how to set and change login password 2.8 Demonstrate how to use manual pages
3. How to start and use **vi** screen-oriented text editor, including the command to insert and save.	3.1 Describe how to insert and append text 3.2 Demonstrate how to move around in *vi* editor 3.3 Demonstrate creating and deleting text 3.4 Analyse how to use the change operators 3.5 Demonstrate how to search for text 3.6 Demonstrate how to save and quit *vi*

4. User Solaris environment feature and command-line argument for the shells.	4.1 Outline shell input/output controls 4.2 Demonstrate how to use redirections and pipe commands 4.3 Describe metacharacters 4.4 Explain the history mechanism 4.5 Define aliases 4.6 Describe the system process control 4.7 Describe file and directory protection 4.8 Demonstrate how to copy and move files and directories 4.9 Demonstrate how to set up user environment 4.10 Examine and identify Solaris utilities
5. The Solaris X Window System environment including the files and tools used.	5.1 Analyse CDE graphical user interface 5.2 Demonstrate how to invoke the file manager 5.3 Define CDE tools
6. Solaris networking technologies for providing a reliable, secure and scalable infrastructure.	6.1 Describe Ethernet technology 6.2 Describe host names and addresses 6.3 Demonstrate how to use **rlogin** command 6.4 Define Network File System
7. Solaris administration of user and group accounts, the system files used to store the user and group accounts.	7.1 Evaluate and review *shell* programming and scripting tools 7.2 Demonstrate how to use regular expressions 7.3 Outline Solaris utilities 7.4 Analyse advanced *vi* commands 7.5 Analyse spooling commands 7.6 Explain Solaris workstations and hardware types 7.7 Analyse Solaris network resources
Methods of Evaluation: A 2-hour written examination paper with Section A and Section B. Section A has 40 multiple choice questions. Section B has three essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Introduction to Solaris with a weighting of 100%.	

Recommended Learning Resources: Introduction to Solaris

Text Books	• Unix Commands by Example: A Desktop Reference for Unixware, Solaris and Sco Unix by David Elboth, Kent Dannehl and P.C. Larsen ISBN-10: 0131039539 • Solaris Operating Environment Boot Camp by David Rhodes and Dominic Butler ISBN-10: 0130342874 • Unix System Command Summary for Solaris 2.5 by Inc. Specialized Systems Consultants ISBN-10: 0916151913
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Solaris