

HARDWARE AND NETWORKING SERVICE LEVEL – I



TVET CURRICULUM

Based on December, 2021 Version-IV

Occupational standard (OS)

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Preface

The reformed TVET-System is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented – taking into account international benchmarking – as occupational standards (OS).

In the reformed TVET-System, curricula and curriculum development play an important role with regard to quality driven comparable TVET-Delivery. The Curricula help to facilitate the training process in a way, that trainees acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS).

This curriculum has been developed by a group of professional experts from different Regional TVET Bureaus, colleges, Institutes and universities based on the occupational standard for Hardware and Networking Service Level I.

The curriculum development process has been actively supported and facilitated by **Ministry of Labor and Skills**.

TVET-Program Design

1.1. TVET-Program Title: Hardware and Networking Service **Level I**

1.2. TVET-Program Description

The Program is designed to develop the necessary knowledge, skills and attitude of the trainees to the standard required by the occupation. The contents of this program are in line with the occupational standard. The Trainees who successfully completed the Program will be qualified to work as **Hardware and Networking service supporter I** with competencies elaborated in the respective OS. Graduates of the program will have the required qualification to work in the **Economic Infrastructure** sector in the field of **Hardware and Networking Service**.

The prime objective of this training program is to equip the Trainees with the identified competences specified in the OS. Graduates are therefore expected to Connect Hardware Peripherals, Operate Personal Computer, Protect Application or System Software, Install Software Application, Develop Computer Keyboard Skill, Create and Use Spreadsheet, Maintain Equipment and Software Inventory and Documentation, Identify and Use Network Hand Tools, Access and Use Internet, and Apply 5S Procedures in accordance with the performance criteria and evidence guide described in the OS.

1.3. TVET-Program Training Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competences:

- EIS HNS1 01 1221 Connect Hardware Peripherals**
- EIS HNS1 02 1221 Operate Personal Computer**
- EIS HNS1 03 1221 Protect Application or System Software**
- EIS HNS1 04 1221 Install Software Application**
- EIS HNS1 05 1221 Develop Computer Keyboard Skill**
- EIS HNS1 06 1221 Create and Use Spreadsheet**
- EIS HNS1 07 1221 Maintain Equipment and Software Inventory and Documentation**
- EIS HNS1 08 1221 Identify and Use Network Hand Tools**
- EIS HNS1 09 1221 Access and Use Internet**
- EIS HNS1 10 1221 Apply 5S Procedures**

1.4. Duration of the TVET-Program

The Program will have duration of **420 hours** including the on school/ Institution training and on-the-job practice or cooperative training time. Such cooperative training based on realities of the industry, nature of the occupation, location of the TVET institution, and other factors will be considered in the training delivery to ensure that trainees acquire practical and workplace experience.

s.no	Unit competency	TVET Institution training		Cooperative training	Total hours	Remarks
		Theory	Practical			
1.	Connect Hardware Peripherals	15	18	17	50	
2.	Operate Personal Computer	24	28	28	80	
3.	Protect Application or System Software	15	18	17	50	
4.	Install Software Application	9	11	10	30	
5.	Develop Keyboard Skills	9	11	10	30	
6.	Create and Use Spreadsheets	15	18	17	50	
7.	Maintain Inventories of Equipment, Software and Documentation	6	8	6	20	
8.	Identify and Use Network Hand Tools	12	14	14	40	
9.	Access and Use Internet	9	11	10	30	
10.	Apply 5S Procedures	12	14	14	40	
Total hours		130	148	142	420	

1.5. Qualification Level and Certification

Based on the descriptors elaborated on the Ethiopian National TVET Qualification Framework (NTQF) the qualification of this specific TVET Program is Level I.

The trainee can exit after successfully completing the modules in one level and will be awarded the equivalent institutional certificate on the level completed. However, only institutional certificate of training accomplishment will be awarded.

1.6. Target Groups

Any citizen **with or without disability** who meets the entry requirements under items 1.7 and capable of participating in the training activities is entitled to take part in the Program.

1.7 Entry Requirements

The prospective participants of this program are required to possess the requirements or directive of the **Ministry of Labor and Skills**.

1.8 Mode of Delivery

This TVET-Program is characterized as a formal Program on middle level technical skills. The mode of delivery is co-operative training. The time spent by the trainees in the real work place/ industry will give them enough exposure to the actual world of work and enable them to get hands-on experience.

The co-operative approach will be supported with school-based lecture-discussion, simulation and actual practice. These modalities will be utilized before the trainees are exposed to the industry environment.

Hence based on the nature of the occupation, location of the TVET institutions, and interest of the industry alternative mode of cooperative training such as apprenticeships, internship and traineeship will be employed. In addition, in the areas where industry is not sufficiently available the established production and service centers/learning factories in TVET institutions will be used as cooperative training places. The Training-Institution and identified companies have forged an agreement to co-operate with regard to the implementation of this program.

1.9. TVET-Program Structure

Unit of Competence		Module Code & Title		Training Outcomes	Duration (In Hours)
<u>EIS HNS1 01 1221</u>	Connect Hardware Peripherals	<u>EIS HNS1 M01 0322</u>	Connecting Hardware Peripherals	<ul style="list-style-type: none"> • Confirm requirements of client • Obtain required peripherals • Connect hardware peripherals • Connect workstation to the internet 	50
<u>EIS HNS1 02 1221</u>	Operate Personal Computer	<u>EIS HNS1 M02 0322</u>	Operating Personal Computer	<ul style="list-style-type: none"> • Start and Shutdown the computer • Access basic system information • Navigate and Manipulate desktop environment • Organize basic directory/ folder structure and files • Organize files for user and/or organization requirements • Print information • Operate application software 	80
<u>EIS HNS1 05 1221</u>	Develop Computer Keyboard Skill	<u>EIS HNS1 M03 0322</u>	Developing Computer Keyboard Skill	<ul style="list-style-type: none"> • Use safe work practices • Identify and develop keyboard skills • Check accuracy 	30
<u>EIS HNS1 06 1221</u>	Create and Use Spreadsheet	<u>EIS HNS1 M04 0322</u>	Creating and Using Spreadsheet	<ul style="list-style-type: none"> • Select and prepare resources • Create spreadsheets • Produce simple charts • Finalize spreadsheets 	50
<u>EIS HNS1 04 1221</u>	Install Software Application	<u>EIS HNS1 M05 0322</u>	Installing Software Application	<ul style="list-style-type: none"> • Determine software and upgrade requirements • Obtain software or software upgrade • Install or upgrade software 	30
<u>EIS HNS1 03 1221</u>	Protect Application or System Software	<u>EIS HNS1 M06 0322</u>	Protecting Application or System Software	<ul style="list-style-type: none"> • Ensure user accounts are controlled • Detect and remove destructive software • Identify and take action to stop spam 	50

EIS HNS1 09 1221	Access and Use Internet	EIS HNS1 M07 0322	Accessing and Using Internet	<ul style="list-style-type: none"> • Access internet • Search internet • Organize and Complete Daily Work Activities 	30
EIS HNS1 08 1221	Identify and Use Network Hand Tools	EIS HNS1 M08 0322	Identifying and Using Network Hand Tools	<ul style="list-style-type: none"> • Basic network Overview • Identify and Uses of basic Network hand-tools • Work with others 	40
EIS HNS1 07 1221	Maintain Equipment and Software Inventory and Documentation	EIS HNS1 M09 0322	Maintaining Equipment and Software Inventory and Documentation	<ul style="list-style-type: none"> • Document and update inventory • Store technical documentation 	20
EIS HNS1 10 1221	Apply 5S Procedures	EIS HNS1 M10 0322	Applying 5S Procedures	<ul style="list-style-type: none"> • Prepare for work. • Sort items. • Set all items in order. • Perform shine activities. • Standardize 5S. • Sustain 5S. 	40
Total Hours					420

*The time duration (Hours) indicated for the module should include all activities in and out of the TVET institution.

1.10 Institutional Assessment

Two types of evaluation will be used in determining the extent to which training outcomes are achieved. The specific training outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The *formative assessment* is incorporated in the training modules and form part of the training process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining training outcomes. It identifies the specific training errors that need to be corrected, and provides reinforcement for successful performance as well. For the teacher, formative evaluation provides information for making instruction and remedial work more effective.

Summative Evaluation the other form of evaluation is given when all the modules in the program have been accomplished. It determines the extent to which competence have been achieved. And, the result of this assessment decision shall be expressed in the term of institutional Assessment implementation guidelines..

Techniques or tools for obtaining information about trainees' achievement include oral or written test, demonstration and on-site observation.

1.11 TVET Teachers Profile

The teachers conducting this particular TVET Program are **B Level and above** who have satisfactory practical experiences or equivalent qualifications.

LEARNING MODULE 01	
TVET-PROGRAMME TITLE: Hardware and Network Servicing Level I	
MODULE TITLE: Connecting Hardware Peripherals	
MODULE CODE: EIS HNS1 M01 0322	
NOMINAL DURATION: 50 Hours	
MODULE DESCRIPTION: This unit defines the competence required to identify and connect hardware peripherals according to instructions and a workstation or networked computer to the internet.	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Confirm Requirements of the client</p> <p>LO2. Obtain required peripherals</p> <p>LO3. Connect hardware peripherals</p> <p>LO4. Connect workstation to the internet</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Confirm Requirements of the client</p> <ul style="list-style-type: none"> 1.1 Introduction to Computer <ul style="list-style-type: none"> 1.1.1 Understand purpose of a computer 1.1.2 Identify Hardware and Software Computer Components 1.1.3 Identify Computer Classifications 1.2 Identifying client peripherals requirements and confirming accordance of organizational standards 1.3 Documenting client requirements of peripherals and reporting for appropriate person. 1.4 Verifying client requirements based on organizational standards 1.5 Ensuring vendor warranty and support services <ul style="list-style-type: none"> 1.5.1 User manual 1.5.2 Written instructions from meetings 1.5.3 Verbal request or help desk 1.5.4 Search engine references <p>LO2. Obtain required peripherals</p> <ul style="list-style-type: none"> 2.1. Obtaining peripherals devices 2.2. Entering peripherals into equipment inventory 	

2.3. Validating delivered physical components

2.4. Storing peripherals

LO3. Connect hardware peripheral

3.1 Verifying installation schedule

3.2 Removing and/or Replacing old peripherals

3.3 Connecting and configuring new peripherals

3.4 Testing hardware peripherals

LO 4. Connect workstation to the internet

4.1. Connecting workstations to existed internet connection

4.2. Launching internet browser software and test

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			❖ Inform the group members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

Lo1. Confirm requirements of client

- Client peripherals are identified requirements and confirmed in accordance with organizational standards
- Client requirements and peripherals needed are documented in line with organizational standards and findings are reported to the appropriate person
- Client requirements are verified with appropriate person in line with organizational standards and reporting procedures
- Action must be taken to ensure client support expectations are covered by vendor warranty and support services

Lo2. Obtain required peripherals

- Peripherals are obtained under instruction from appropriate person
- Peripherals are entered into equipment inventory according to organizational standards
- Validate that contents of delivered components and physical contents match the packing list and resolve discrepancies, if necessary
- Peripherals are stored according to vendor/manual guidelines

Lo3. Connect hardware peripherals

- Timeframe for installation schedule is verified with the client in accordance with the organization requirements
- Old peripherals are removed and/or replaced with minimum disruption to clients taking into account environmental considerations and OHS standards
- New peripherals are connected with minimum disruption to clients and taking into account the operating system procedures
- The computer is configured to accept the new peripherals
- Hardware peripherals are tested and confirm client satisfaction, particular attention must be paid to possible impact on other systems and adjustments are made as required.

Lo4. Connect workstation to the internet

- Workstations are connected to the internet through the existing internet connection and functionality confirmed
Internet browser software is launched to enable access to the internet and functionality confirmed.

Annex: Resource Requirements

Connecting Hardware Peripherals (EIS HNS1 M01 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	<ul style="list-style-type: none"> Prepared by Trainer 	25	1:1
2.	Reference Books			
2.1	IT essential: PC Hardware and Software	Cisco Module	5	1:5
2.2	Exploring Computers Windows Edition	Kevin Wilson	5	1:5
B. Learning Facilities & Infrastructure				
1.	Internet	High speed broad band, Wifi	1	1:25
2.	Library	Multipurpose	1	
3.	Work shop	Well-ventilated class room with IT equipment	1	1:25
4	White board	1.20 X 1.50m	1	1:25
5	Shelves	wood or metal	1	1:25
C. Consumable Materials				
1.	Blank CD	CD-RW	25	1:1
2	Stationery	Whiteboard marker, printing paper, printer ink	1	1:25
3	Flash disk	San disk or similar 4-8GB	25	1:25
4	Connectors	Terminals, converters, splitters (SATA to IDE, USB) splitter	5	1:5
D. Tools and Equipment's				
1.	Computer	HDD: 500GB, RAM: 2GB Speed: 2GHz	25	1:1
2	Divider	American socket standard	10	1:3
4	Projector	LCD	1	1:25
5	Switch	16/24 port	2	1:13

LEARNING MODULE 02

TVET-PROGRAMME TITLE: Hardware and Networking Service **Level I**

MODULE TITLE: Operating Personal Computer

MODULE CODE: EIS HNS1 M02 0322

NOMINAL DURATION: 80 Hours

MODULE DESCRIPTION: This module defines the competence required to operate a personal computer, including starting the PC, logging in, using and understanding desktop icons and their links to underlying programs, navigating a directory structure, saving work, printing, closing down the PC and working with word processing.

LEARNING OUTCOMES

At the end of the module the trainee will be able to:

- LO1.** Start and Shutdown the computer
- LO2.** Access basic system information
- LO3.** Navigate and Manipulate desktop environment
- LO4.** Organize basic directory/ folder structure and files
- LO5.** Organize files for user and/or organization requirements
- LO6.** Print information
- LO7.** Operate application software

MODULE CONTENTS:

LO1. Start and Shutdown the Computer

- 1.1. Checking connected peripheral devices
- 1.2. Checking appropriate input voltage
- 1.3. Switching On/Off computer power

LO2. Access Basic System Information

- 2.1 Creating user account
- 2.2 Setting user account policy
- 2.3 Accessing system information
- 2.4 Using help and support functions

LO3. Navigate and manipulate desktop environment

- 3.5 Creating and customizing desktop icons
- 3.6 Selecting, opening, and closing desktop icons
- 3.7 Manipulating application windows

LO4. Organize basic directory/ folder structure and files

- 4.1 Creating directory
- 4.2 Identifying directory attributes
- 4.3 Copying, and moving subdirectories and directories
- 4.4 Renaming, hiding/showing subdirectories and directories
- 4.5 Accessing subdirectories and directories
- 4.6 Creating and opening documents
- 4.7 Saving, printing and closing documents

LO5. Organize files for user and/or organization requirements

- 5.1 Using system browsers/search
- 5.2 Accessing files
- 5.3 Selecting, opening and renaming files
- 5.4 Copy/ move files
- 5.5 Deleting and restoring files
- 5.6 Erasing and formatting disks

Lo6. Print information

- 6.1 Installing printers
- 6.2 Changing default printer
- 6.3 Printing document/ information

Lo7. Operate application software

- 7.1 Creating word document
- 7.2 Changing the Basic Setting of Documents
- 7.3 Using Mail Merge
- 7.4 Inserting Tables and Images
- 7.5 Selecting Basic Documents Print Settings

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Start and Shutdown the computer

- Peripheral device connections for correct position are checked
- Input voltage for the device based on the OHS standards are checked
- Power at both the power button and computer are switched on
- Save important documents and programs to minimize risk of data loss
- Save any work to be retained and close open application programs
- Shut down computer and switch off any unused peripheral devices

LO.2 Access basic system information

- User name and password are inserted as prompted and noted access, privacy, security and related conditions of use displayed on introductory screens
- Operating system are navigated to access system information to identify system configuration and application versions in operation
- Help and support functions are used as required

LO.3 Navigate and Manipulate desktop environment

- Desktop icons are created and customized
- Desktop icons are selected, opened and closed to access application programs
- Application windows are manipulated and desktop returned to original conditions

LO.4 Organize basic directory/ folder structure and files

- Directories and subdirectories are created and named
- Attributes of directories are identified
- Subdirectories between directories are copy and moved
- Directories as required are renamed, Hide/show
- Directories and subdirectories are accessed via different paths

LO.5 Organize files for user and/or organization requirements

- System browser are used to search drives for specific files
- Most commonly used types of files in the directories are accessed
- Groups of files are selected, opened and renamed as required

- Files between directories are moved
- Files to disks are copied/backup
- Deleted files are restored as necessary
- Disks are erased and formatted as necessary

LO.6 Print information

- Printers are added if required and ensured to have correct printer settings
- Default printer are changed if appropriate
- Information is printed from an installed printer

LO.7 Operate application software

- Documents and customize basic settings are created to meet page layout conventions
- Document and create tables are formatted
- Images and use mail merge are added
- Basic print settings and print documents are selected

Annex: Resource Requirements

Operating Personal Computer (EIS HNS1 M02 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	TTTLM prepared by the trainer	25	1:1
2.	<i>Reference Books</i>			
2.1	Introduction to the Personal Computer	IT Essentials: PC Hardware and Software Course Booklet, V 5	25	1:1
2.2	Chapter One: Introduction to Computer	Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014	10	1:2
2.3	Personal Computer All about PC	See http://code.pedia press.com/ for more information. PDF generated at: Thu, 17 Jun 2010 10:01:50 UTC	10	1:2
B.	<i>Learning Facilities & Infrastructure</i>			



1.	Computer Lab	Well-ventilated class room with IT equipment	1	1:25
2.	Projector	LCD	1	1:25
C.	<i>Consumable Materials</i>			
1.	CD	CD-R, CD-RW	25	1:1
2	DVD	DVD-R/RW	25	1:1
5	Paper	A4 size	1 Dosta	1:25
6	Cartridge	Black and white	2	1:13
D.	<i>Tools and Equipments</i>			
1.	Printers	LaserJet / inkjet	1	1:25
2	Computers	RAM: 2GB and above HDD: 500 GB and above	25	1:1
3	Application Software	MS Office 2007 and above	25	1:1
4	Operating System	Windows 7 and above	25	1:1

LEARNING MODULE 03	
TVET-PROGRAMME TITLE: Hardware and Networking Service Level I	
MODULE TITLE: Developing Keyboard Skills	
MODULE CODE: <u>EIS HNS1 M03 0322</u>	
NOMINAL DURATION: 30 Hours	
MODULE DESCRIPTION: This Module describes the performance outcomes, skills and knowledge required to develop basic keyboard skills using touch typing techniques.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Use safe work practices LO2. Identify and develop keyboard skills LO3. Check accuracy	
MODULE CONTENTS: LO1. Use safe work practices <ol style="list-style-type: none"> 1.1. Adjusting Ergonomic Requirements 1.2. OHS requirements for work organization 1.3. Safety procedures for conducting work LO2. Identify and develop keyboard skills <ol style="list-style-type: none"> 2.1. Identifying Keyboard functions 2.2. Applying Touch typing technique 2.3. Developing keyboard Speed and accuracy LO3. Check accuracy <ol style="list-style-type: none"> 3.1. Identifying and correcting Document errors carefully 3.2. Checking final document accuracy 	

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1. Use safe work practices

- Workspace, furniture and equipment are adjusted to suit user ergonomic requirements
- Work organization is ensured to meet organizational and Occupational Health and Safety (OHS) requirements for computer operation
- Established safety procedures are followed when conducting work

LO2. Identify and develop keyboard skills

- Keyboard functions are identified and applied for both alpha and numeric keyboard functions
- Touch typing technique is applied to complete a task
- Speed and accuracy are developed in accordance with workplace requirements for level of responsibility

LO3. Check accuracy

- Document is proofread carefully to identify errors
- Document and correct errors are amended
- A final document accuracy check is completed

Annex: Resource Requirements

Developing Keyboard Skills (EIS HNS1 M03 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	prepared by the trainer	25	1:1
2. Reference Books				
2.1	- Applying your typing skill	Applying your typing skill	25	1:1
B. Learning Facilities & Infrastructure				
1.	Computer Lab	Well-ventilated	1	1:25
2.	Projector	LCD	1	1:25
C. Consumable Materials				
1.	CD	CD-R/RW	50	2:1
2	DVD	DVD-R/RW	50	2:1
3	Paper	A4	5	1:5
D. Tools and Equipment's				
1.	Printers	LaserJet	1	1:25
2	Computers	RAM: 4GB and above HDD: 500 GB and above	25	1:1
3	Application Software	Mavis beacon	25	1:1
4	Operating System	Windows 7 and above	25	1:1

LEARNING MODULE 04	
TVET-PROGRAMME TITLE: Hardware and Networking Service Level I	
MODULE TITLE: Creating and Use Spreadsheets	
MODULE CODE: <u>EIS HNS1 M04 0322</u>	
NOMINAL DURATION: 50 Hours	
MODULE DESCRIPTION: This module describes the performance outcomes, skills and knowledge required to operate spreadsheet applications and perform basic operations, including creating and formatting spreadsheet data, incorporating charts and objects, and customizing and printing Spreadsheet.	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Select and prepare resources</p> <p>LO2. Create spreadsheets</p> <p>LO3. Produce simple charts</p> <p>LO4. Finalize spreadsheets</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Select and prepare resources</p> <ol style="list-style-type: none"> 1.1. Minimizing wastage of energy and resource conservation techniques 1.2. Identifying and clarifying Spreadsheet task requirements <p>LO2. Create spreadsheets</p> <ol style="list-style-type: none"> 2.1. Inserting and editing appropriate data 2.2. Adjusting spreadsheet page and cell layout 2.3. Using and testing formula 2.4. Using spreadsheet manual, user documentation and online help <p>LO3. Produce simple charts</p> <ol style="list-style-type: none"> 3.1. Selecting and inserting chart type and design 3.2. Modifying chart type and layout formatting features <p>LO4. Finalize spreadsheets</p> <ol style="list-style-type: none"> 4.1. Adjusting and printing spreadsheet charts 4.2. Saving spreadsheet 	

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment

	❖ Time extension	exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Use loud voice ❖ Time extension	❖ Conduct close follow up ❖ Time extension
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ASSESSMENT CRITERIA:

LO1. Select and prepare resources

- Workspace, furniture and equipment are adjusted to suit user ergonomic, work organization and Occupational Health and Safety (OHS)
- Energy and resource conservation techniques are used to minimize wastage in accordance with organizational and statutory requirements
- Spreadsheet task requirements are identified and clarified with relevant personnel as required

LO2. Create spreadsheets

- Ensure data is entered, checked and amended in accordance with organizational and task requirements, to maintain consistency of design and layout
- Spreadsheet is formatted using software functions, to adjust page and cell layout to meet information requirements, in accordance with organizational style and presentation requirements
- Ensure formulae are used and tested to confirm output meets task requirements, in consultation with appropriate personnel as required
- Manuals, user documentation and online help are used to overcome problems with spread sheet design and production

LO3. Produce simple charts

- Chart type and design that enables valid representation of numerical data are selected and organizational and task requirements are met
- Chart is created using appropriate data range in the spreadsheet
- Chart type and layout are modified using formatting features

LO4. Finalize spreadsheets

- Spreadsheet and any accompanying charts are previewed, adjusted and printed in accordance with organizational and task requirements
- Ensure data input meets designated time lines and organizational requirements for speed and accuracy
- Spreadsheet is named and stored in accordance with organizational requirements and exit the application without data loss/damage

Annex: Resource Requirements

Creating and Use Spreadsheets (EIS HNS1 M04 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	TTTLM prepared by the trainer	25	1:1
2.	Reference Books			
2.1	Introduction to the Personal Computer	IT Essentials: PC Hardware and Software Course Booklet, V 5	25	1:1
2.2	Chapter One: Introduction to Computer	Vermaat, Misty E.Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014	10	1:2
2.3	Personal Computer All about PC	See http://code.pedia press.com/ for more information. PDF generated at: Thu, 17 Jun 2010 10:01:50 UTC	10	1:2
B. Learning Facilities & Infrastructure				
1.	Computer Lab		1	1:25



2.	Projector		1	1:25
C. Consumable Materials				
1.	CD	CD-R/RW	25	1:1
2	DVD	DVD-RW	25	1:1
5	Paper	A4 size	2 Dosta	1:13
6	Cartridge	Laser	2	1:13
D. Tools and Equipment's				
1.	Printers	Laser jet	1	1:25
2	Computers	RAM: 2GB and above HDD: 250 GB and above	25	1:1
3	Application Software	MS Office 2007 and above	25	1:1
4	Operating System	Windows 7 and above	25	1:1

LEARNING MODULE 05	
TVET-PROGRAMME TITLE: Hardware and Network Servicing Level I	
MODULE TITLE:- Installing Software Application	
MODULE CODE: <u>EIS HNS1 M05 0322</u>	
NOMINAL DURATION: 30 hours	
MODULE DESCRIPTION: This module defines the competence required to install or upgrade basic software applications using a commercial applications program.	
LEARNING OUTCOMES	
At the end of the module the learner will be able to:	
<ul style="list-style-type: none"> Lo1. Determine software and upgrade requirements Lo2. Obtain software or software upgrade Lo3. Install or upgrade software 	
MODULE CONTENTS:	
Lo1. Determine software and upgrade requirements	
<ul style="list-style-type: none"> 1.1. Documenting Client requirements 1.2. Reporting client's requirement 	
Lo2. Obtain software or software upgrade	
<ul style="list-style-type: none"> 2.1. Investigating and selecting application program 2.2. Obtaining application program under instruction 2.3. Determining licensing requirements and record <ul style="list-style-type: none"> 2.3.1. Type of license 2.3.2. Cost of license 2.3.3. Support provided 2.4. Ensuring minimum hardware and operating system requirement 	
Lo3. Install or upgrade software	
<ul style="list-style-type: none"> 3.1. Installing or upgrading application software 3.2. Completing and testing Installation process 3.3. Paying attention to possible impact on other systems 3.4. Ensuring client requirements in line with the organizational standard 	

LEARNING METHODS:

For None Impaired Trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in audio/video & in <u>brail format</u> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide orientation on the physical feature of the work shop

	<p>lecture in audio format</p> <ul style="list-style-type: none"> ❖ Provide orientation on the physical feature of the work shop ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Summarize main points 		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support(if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<p>with group members</p> <ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<p>members</p> <ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly 	
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ASSESSMENT METHODS:

Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
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Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text/Brail ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

Assessment criteria

Lo1. Determine software and upgrade requirements

- Client requirements are documented and reported to appropriate person in accordance with the workplace standard
- Act on instructions to meet client requirements in line with organizational requirements

Lo2. Obtain software or software upgrade

- Application program that best conforms to requirements and organizational policies are investigated and selected
- Application program under instruction is obtained from appropriate person
- Licensing requirements and record are determined in line with organizational guidelines
- Target computer is ensured to conform with the minimum hardware and operating system requirements of the application program

Lo3. Install or upgrade software

- New or upgraded software are installed in accordance with appropriate person or organizational instructions
- Installation process is completed efficiently and effectively with minimal disruption
- Testing and acceptance are carried out in line with corporate guidelines, paying particular attention to possible impact on other systems
- Ensure client requirements are satisfied in accordance with the organizational standard
- Outstanding client issues are referred to appropriate person as necessary

Annex: Resource Requirements

Installing Software Application (EIS HNS1 M05 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	Teacher's made <ul style="list-style-type: none"> • Information sheet • Operation Sheet • PBT materials 	25	1:1
B. Learning Facilities & Infrastructure				
1	Workshop	- 8x12m; equipped with networked computer, reference materials	1	1:25
2.	Library	- Multipurpose	1	1:25
3.	Internet	broadband /Wireless	1	1:25
4	Shelves	- wooden or metal	5	1:5
5	White Board	1.50 X 1.50	1	1:25
6	Cabinet	- metal or wood	1	1:25
C. Consumable Materials				
1	Blank Disk	- CD-R/RW	5	1:5
2	Stationery	- Whiteboard marker, printing paper, printer ink, pen, sanitizing alcohol	1	1:25
3	Flash disk	8GB	5	1:5
D. Tools and Equipment's				
5	Software	antivirus software , operating system (w7,w8,w10 or above),recovery software, Application soft wares.	25	1:1
7	UPS	1000 Volt	5	1:25
8	Divider	Power king and advanced if any	10	1:3
9	Multimedia projector	- LCD	1	1:25
10	Printer	Laser jet and ink jet	1	1:25

LEARNING MODULE 06	
TVET-PROGRAMME TITLE: Hardware and Networking Service Level I	
MODULE TITLE: Protecting Application or System Software	
MODULE CODE: <u>EIS HNS1 M06 0322</u>	
NOMINAL DURATION: 50. Hours	
MODULE DESCRIPTION: This module defines the competence required to keep application or system software working effectively. It includes detecting and removing destructive software.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Ensure user accounts are controlled LO2. Detect and remove destructive software LO3. Identify and take action to stop spam	
MODULE CONTENTS: LO1. Ensure user accounts are controlled <ul style="list-style-type: none"> 1.1. User account type/privileges 1.2. Managing user accounts 1.3. Modifying default security policy 1.4. displaying appropriate logon legal notices 1.5. Monitoring emails 1.6. Accessing information service <ul style="list-style-type: none"> 1.6.1. Identifying security gaps 1.6.2. Taking appropriate actions LO2. Detect and remove destructive software <ul style="list-style-type: none"> 2.1 Defining and identifying common types of destructive software 2.2 Accessing virus protection <ul style="list-style-type: none"> 2.2.1. Selecting anti-virus software 2.2.2. Installing and updating anti-virus software 2.2.3. Describing advance system protection 2.3. Configuring software security setting 2.4. Running and/or scheduling anti-virus software 2.5. Reporting and removing detected destructive software 	

LO3. Identify and take action to stop spam

3.1 Defining and identifying common types of spam

3.2 Protecting unauthorized spammer

3.3 Configuring and using spam filters

3.4 Reporting and documenting spams

3.4.1 Identifying security threats

3.4.2 Performing recommended action

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate

	<ul style="list-style-type: none"> ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ Show clear and short method ❖ Use gesture ❖ provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<p>equipment's/machines</p> <ul style="list-style-type: none"> ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	
Computer Based Training	❖	❖	❖	
ASSESSMENT METHODS:				
Interview	❖	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language 	Use written response as an option for the trainees

		<p>proper communication was conducted with the trainee through the service of the sign language interpreter</p> <ul style="list-style-type: none"> ❖ Use short and clear questioning ❖ Time extension 	<p>interpreter if necessary</p>	<p>having speech challenges</p>
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1: Ensure user accounts are controlled

- Check whether you logon by Administrator or not.
- Modify default user settings to ensure that they conform to security policy
- Previously created user settings are modified to ensure they conform to updated security policy
- Ensure legal notices displayed at logon are appropriate
- Appropriate utilities are used to check strength of passwords and consider tightening rules for password complexity
- Emails are monitored to uncover breaches in compliance with legislation
- Information services are accessed to identify security gaps and take appropriate action using hardware and software or patches

LO2: Detect and remove destructive software

- Common types of destructive software are defined and identified
- Virus protection compatible with the operating system in use are selected and installed
- Advanced systems of protection are described in order to understand allow/disable and further options
- Software updates on a regular basis are installed
- Software security settings are configured to prevent destructive software from infecting computer
- Virus protection software are run and/or scheduled on a regular basis
- Detected destructive software are reported to appropriate person and remove the destructive software

LO3: Identify and take action to stop spam

- Common types of spam are defined and identified
- Appropriate action is taken in order to protect unauthorized access of spammers
- Spam filters are configured and used
- Spams are reported and documented to identify the security threats and be able to perform recommended action

Annex: Resource Requirements

Protecting Application or System Software (EIS HNS1 M06 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	TTLM prepared by the trainer	25	1:1
2. Reference Books				
2.1	Introduction to the Personal Computer	IT Essentials: PC Hardware and Software Course Booklet, V 5	25	1:1
2.2	Chapter One: Introduction to Computer	Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014	10	1:2
2.3	Personal Computer All about PC	See http://code.pediapress.com/ for more information. PDF generated at: Thu, 17 Jun 2010 10:01:50 UTC	10	1:2
B. Learning Facilities & Infrastructure				
1.	Computer Lab		1	1:25
2.	Projector	LCD	1	1:25
C. Tools and Equipment's				
1.	Printers	Laser jet	5	1:5
2	Computers	RAM: 2GB and above HDD: 250 GB and above	25	1:1
3	Application Software	MS Office 2007 and above	25	1:1
4	Operating System	Windows 7 and above	25	1:1
5	Anti-Virus Software	Latest version	25	1:1

LEARNING MODULE 07

TVET-PROGRAMME TITLE: Hardware and Network Servicing Level I

MODULE TITLE: Accessing and Using Internet

MODULE CODE: EIS HNS1 M07 0322

NOMINAL DURATION: 30Hours

MODULE DESCRIPTION: this module defines the competence required to access internet and complete basic web search tasks. It includes finding required information

LEARNING OUTCOMES

At the end of the module the learner will be able to:

- LO1.** Access internet
- LO2.** Search internet
- LO3.** Organize and Complete Daily Work Activities

MODULE CONTENTS:

LO1. ACCESS INTERNET

- 1.1. Opening internet browser and setting internet options
- 1.2. Adjusting display/view mode and toolbars
- 1.3. Accessing data and image from particular site
- 1.4. Deleting cookies and history of internet browser

LO2. SEARCH INTERNET

- 2.1. Using search engines
- 2.2. Saving and presenting search results
- 2.3. Creating and saving bookmarks
- 2.4. Modifying page setup options and printing information
- 2.5. Setting up proxy server in internet browser
- 2.6. Ethical use of Internet

LO3. Organize and Complete Daily Work Activities

- 3.1. Negotiating and agreeing work goals and plans
- 3.2. Developing an understanding between teams relationship
- 3.3. Planning and prioritizing workload
- 3.4. Completing tasks with in designated time lines.
- 3.5. Communicating task progress.

LEARNING METHODS:				
For None Impaired Trains	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video & inBrail format ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

<p>Demonstration</p>	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ provide tutorial support (if necessary)
<p>Individual assignment</p>	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ use sign language interpreter ❖ provide briefing /orientation on the assignment ❖ provide visual recorded material 	<ul style="list-style-type: none"> ❖ provide briefing /orientation on the assignment ❖ provide visual recorded material 	

ASSESSMENT METHODS:

Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text/Brail ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA

LO1. Access internet

- Internet browser is opened and a home page of personal choice set up by setting internet options
- Display/view modes is adjusted to suit personal requirements
- Toolbar is modified to meet user and browsing needs
- Particular site is accessed and retrieved data
- Images are loaded or not loaded depending on modem speed, computer and browser capabilities
- URL is opened to obtain data and browse link
- Cookies and history of internet browser are deleted as precaution from virus infection

LO2. Search internet

- Search engines are opened and search requirements defined using a range of search parameters
- Search results are saved and presented as a report according to the information required
- Bookmarks are created for required web page and saved in associated bookmark folder
- Page set up options is modified and web page or the required information printed
- Browser is shut down and exited
- OHS and netiquette principles are observed through the process

LO3. Organize and Complete Daily Work Activities

- Work goals and plans are negotiated and agreed with assistance from appropriate persons
- An understanding of the relationship between individual work goals and plans, and organizational goals and plans is developed
- Workload is planned and prioritized within allocated timeframes
- Tasks are completed within designated time lines and in accordance with organizational requirements and instructions
- Progress of task is communicated to supervisor or colleagues as required

Annex: Resource Requirements

Accessing and Using Internet (EIS HNS1 M07 0322)			
Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
<i>Learning Materials</i>			
TTLM	- Teacher's Made <ul style="list-style-type: none"> • Information sheet • Operation Sheet • OBT Materials 	25	1:1
Reference Books	CompTIA Network+ all in one exam guide 6 th edition Basics of Networking	25	1:1
<i>Learning Facilities & Infrastructure</i>			
Lecture Room	- 8x12m; equipped with IT equipment and internet	1	1:25
Library	- Multipurpose	1	1:25
Shelves	- wooden or metal	5	
Locker	- wooden or metal	2	
Cabinet	- metal	1	
<i>Consumable Materials</i>			
Stationery	- Whiteboard marker, printing paper, printer ink	1	1:25
Flash disk	San disk or similar 16GB	25	1:1
<i>Tools and Equipment's</i>			
DSL Access point	<ul style="list-style-type: none"> • ZTE 	1	1:25
Browser Software	<ul style="list-style-type: none"> • Internet Explorer , • Mozilla Firefox 	1	1:25
UPS	<ul style="list-style-type: none"> • 1000 Volt Amper 	25	1:1
Desktop Computer	Core I5, RAM=4GB, HDD=500GB	25	1:1
Multimedia projector	- LCD	1	1:25
Printer	- Laser jet printer - color printer	1	1:25

LEARNING MODULE 08

TVET-PROGRAMME TITLE: Hardware and Networking Service **Level I**

MODULE TITLE: Identifying and Using Network Hand Tools

MODULE CODE: EIS HNS1 M08 0322

NOMINAL DURATION: 40 Hours

MODULE DESCRIPTION: This module describes the performance outcomes, skills and knowledge required to use basic network tools to assist in using a network basically.

LEARNING OUTCOMES

At the end of the module the trainee will be able to:

- LO1.** Basic network Overview
- LO2.** Identify and Uses of basic Network hand-tools
- LO3.** Work with others

MODULE CONTENTS:

LO1. Basic network Overview

- 1.1. Introducing Network
- 1.2. Identifying Types of Network
- 1.3. Identifying Forms of Ethernet Cables
 - 1.3.1. Straight Through
 - 1.3.2. Crossover
 - 1.3.3. Rollover

LO2. Identify and Uses of basic Network hand-tools

- 2.1. Using Network Hand Tools
 - 2.1.1. Identifying Appropriate Network Hand Tools and Power Tools
 - 2.1.2. Function of Network Hand Tools
- 2.2. Reviewing OHS Hazards and Factors

LO3. Work with others

- 3.1.** Seeking Assistance from Workgroup
- 3.2.** Providing Support to Team Members
- 3.3.** Sharing Relevant Information

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1: Basic network Overview

- General network will be introduced
- Types of networks are identified
- Forms of Ethernet cables are identified

LO2: Identify and Uses of basic Network hand-tools

- Identify appropriate Network hand tools
- Identify appropriate Power tools
- Uses and functions of network hand tools
- Appropriate use of network hand tools
- Review OHS requirements for tool use

LO3: Work with others

- Assistance is sought from workgroup when difficulties arise and addressed through discussions.
- Support is provided to team members to ensure workgroup goals are met.
- Information relevant to work is shared with team members to ensure designated goals are met.

Annex: Resource Requirements

Identifying and Using Network Hand Tools (EIS HNS1 M08 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	TTTLM prepared by the trainer	25	1:1
2. Reference Books				
2.1	Introduction to the Personal Computer	IT Essentials: PC Hardware and Software Course Booklet, V 5	25	1:1
2.2	Chapter One: Introduction to Computer	Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014	10	1:2
2.3	Personal Computer All about PC	See http://code.pediapress.com/ for more information. PDF generated at: Thu, 17 Jun 2010 10:01:50 UTC	10	1:2
B. Learning Facilities & Infrastructure				
1.	Computer Lab	Well equipped	1	1:25
2.	Projector	LCD	1	1:25
C. Tools and Equipment's				
1.	Printers	Laser Jet	1	1:25
2	Computers	RAM: 2GB and above HDD: 250 GB and above	25	1:1
3	Application Software	MS Office 2007 and above	25	1:1
4	Operating System	Windows 7 and above	25	1:1
5	Network toolkit	Full set	10	1:3

LEARNING MODULE 09	
TVET-PROGRAMME TITLE: Hardware and Network Servicing Level I	
MODULE TITLE: Maintaining Inventories of Equipment, Software and Documentation	
MODULE CODE: EIS HNS1 M09 0322	
NOMINAL DURATION : 20 Hours	
MODULE DESCRIPTION : This module defines the competence required to record and store details of software, hardware and technical documentation.	
LEARNING OUTCOMES	
At the end of the module the trainee will be able to:	
LO1. Document and update inventory	
LO2. Store technical documentation	
MODULE CONTENTS:	
LO1. Document and update inventory	
1.1. Inventory concept and principles	
1.2. Inventory techniques and procedures	
1.3. Maintaining hardware inventory	
1.4.. Maintaining licenses and software inventory	
1.5. Recording and organizing user documentation or technical manuals	
LO2. Store technical documentation	
2.1 Storing equipment, software and documents securely	
2.2 Accessing technical documents	
2.3 Disseminating technical documentation and manuals	

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			❖ Inform the group members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

Lo1. Document and update inventory

- 1.1 Hardware inventory is maintained that creates a profile or description of each piece of equipment
- 1.2 Software inventory and licenses are maintained and updated, as required, particularly when upgrading software
- 1.3 Storage of user documentation or technical manuals are recorded and organized

Lo2. Store technical documentation

- 2.1 Action is taken to ensure software, hardware and equipment not in use, stored in a manner as recommended by technical manuals
- 2.2 Ensure technical documentation is stored securely
- 2.3 Technical documentation are accessed and disseminated as required by client

Annex: Resource Requirements

Maintaining Inventories of Equipment, Software and Documentation (EIS HNS1 M09 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	<ul style="list-style-type: none"> • Information sheet • Job sheet • Operation sheet • Session plan 	25	1:1
B. Learning Facilities & Infrastructure				
1.	Internet	High speed broad band, Wifi	1	1:25
2.	Library	Multipurpose	1	1:25
3.	Work shop	Well-ventilated class room with IT equipment	1	1:25
4	White board	1.20 X 1.50m	1	1:25
5	shelves	wooden or metal	1	1:25
C. Consumable Materials				
1.	Blank CD	CD-RW	25	1:1
2	Stationery	Whiteboard marker, printing paper, printer ink	1	1:25
3	Flash disk	San disk or similar 4-8GB	25	1:25
D. Tools and Equipments				
1.	Computer	Any	25	1:1
2	Divider	Any	5	1:5
3	projector	LCD	1	1:25

LEARNING MODULE 10	
TVET-PROGRAMME TITLE: Hardware and Networking Service Level I	
MODULE TITLE: Applying 5S Procedures	
MODULE CODE: <u>EIS HNS1 M10 0322</u>	
NOMINAL DURATION: 40 Hours	
MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to apply 5S techniques to his/her workplace. It covers responsibility for the day-to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Prepare for work LO2. Sort items LO3. Set all items in order LO4. Perform shine activities LO5. Standardize 5S LO6. Sustain 5S	
MODULE CONTENTS: LO1. Prepare for work 1.1. Using Work Instruction 1.2. Reading and Interpreting Job Specifications 1.3. Observing OHS Requirements of Work Needs 1.4. Preparing and Using Tools and Equipment 1.5. Identifying and Checking Safety Equipment and Tools 1.6. Preparing and Using Kaizen Board LO2. Sort items 2.1. Preparing Sort Activities Plan 2.2. Performing Cleaning Activities 2.3. Identifying Workplace Items and Appropriate Procedures 2.4. Listing Necessary and Unnecessary Items 2.4.1. Using Appropriate Format and Red Tag Strategy for Unnecessary Items	

2.4.2. Recording and Quantifying Necessary Items

2.4.3. Reporting and Checking Workplace Necessary Items Performance Results

LO3. Set all items in order

- 3.1. Preparing order activities plan
- 3.2. Deciding location/layout, storage and indication methods
- 3.3. Preparing and using necessary tools and equipment
- 3.4. Placing and returning items assigned location
- 3.5. Checking assigned and ordered each item
- 3.6. Reporting methods and formats for each set in order result

LO4. Perform shine activities

- 4.1. Preparing shine activities plan
- 4.2. Preparing and using necessary shine tools and equipment
- 4.3. Implementing shine activities
- 4.4. Reporting shining activities performance results

LO5. Standardize 5S

- 5.1. Preparing and using standard 5s activities plan
- 5.2. Preparing and implementing standard 5s activities tools and techniques
- 5.3. Following standard checklists
- 5.4. Specifying workplace standard and avoiding standard problem

LO6. Sustain 5S

- 6.1. Preparing and following sustain 5s plan
- 6.2. Discussing, preparing and implementing sustain 5s tools and techniques
- 6.3. Inspecting workplace standard and sustain 5s
- 6.4. Cleaning workplace
- 6.5. Identifying workplace situations to standard and specifying actions
- 6.6. Recommending workplace improvement
- 6.7. Following checklists and avoiding problems of sustain 5s

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the computer Lab ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the computer Lab
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate

	<ul style="list-style-type: none"> ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ Show clear and short method ❖ Use gesture ❖ provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<p>equipment's/machines</p> <ul style="list-style-type: none"> ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary)
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	
ASSESSMENT METHODS:				
Interview	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<p>Use written response as an option for the trainees having speech challenges</p>

		<p>interpreter</p> <ul style="list-style-type: none"> ❖ Use short and clear questioning ❖ Time extension 		
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension
Oral Questioning	❖	❖	❖	❖

ASSESSMENT CRITERIA:

LO1. Prepare for work

- Work instructions are used to determine job requirements, including method, material and equipment.
- Job specifications are read and interpreted following working manual.
- OHS requirements, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.
- Tools and equipment are prepared and used to implement 5S.
- Safety equipment and tools are identified and checked for safe and effective operation.
- Kaizen Board (Visual Management Board) is prepared and used in harmony with different workplace contexts.

LO2. Sort items

- Plan is prepared to implement sorting activities.
- Cleaning activities are performed.
- All items in the workplace are identified following the appropriate procedures.
- Necessary and unnecessary items are listed using the appropriate format.
- Red tag strategy is used for unnecessary items.
- Unnecessary items are evaluated and placed in an appropriate place other than the workplace.
- Necessary items are recorded and quantified using appropriate format.
- Performance results are reported using appropriate formats.
- Necessary items are regularly checked in the workplace.

LO3. Set all items in order

- Plan is prepared to implement set in order activities.
- General cleaning activities are performed.
- Location/Layout, storage and indication methods for items are decided.
- Necessary tools and equipment are prepared and used for setting in order activities.
- Items are placed in their assigned locations.
- After use, the items are immediately returned to their assigned locations.

- Performance results are reported using appropriate formats.
- Each item is regularly checked in its assigned location and order.

LO4. Perform shine activities

- Plan is prepared to implement shine activities.
- Necessary tools and equipment are prepared and used for shinning activities.
- Shine activity is implemented using appropriate procedures.
- Performance results are reported using appropriate formats.
- Regular shining activities are conducted.

LO5. Standardize 5S

- Plan is prepared and used to standardize 5S activities.
- Tools and techniques to standardize 5S are prepared and implemented based on relevant procedures.
- Checklists are followed for standardize activities and reported to relevant personnel.
- The workplace is kept to the specified standard.
- Problems are avoided by standardizing activities.

LO6. Sustain 5S

- Plan is prepared and followed to sustain 5S activities.
- Tools and techniques to sustain 5S are discussed, prepared and implemented based on relevant procedures.
- Workplace is inspected regularly for compliance to specified standard and sustainability of 5S techniques.
- Workplace is cleaned up after completion of job and before commencing next job or end of shift.
- Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken.
- Improvements are recommended to lift the level of compliance in the workplace.
- Checklists are followed to sustain activities and report to relevant personnel.
- Problems are avoided by sustaining activities.

Annex: Resource Requirements

Applying 5S Procedures (EIS HNS1 M10 0322)				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	TTLM prepared by the trainer	25	1:1
2. Reference Books				
2.1	Introduction to the Personal Computer	IT Essentials: PC Hardware and Software Course Booklet, V 5	25	1:1
2.2	Chapter One: Introduction to Computer	Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014	10	1:2
2.3	Personal Computer All about PC	See http://code.pedia press.com/ for more information. PDF generated at: Thu, 17 Jun 2010 10:01:50 UTC	10	1:2
B. Learning Facilities & Infrastructure				
1.	Computer Lab		1	1:25



2.	Projector	LCD	1	1:25
C. Consumable Materials				
1.	CD	R/RW	25	1:1
2	DVD	R/RW	25	1:1
5	Paper	A4 size	1 Dosta	1:25
6	Cartridge	Black	1	1:25
D. Tools and Equipment's				
1.	Printers	Laser Jet	1	1:25
2	Computers	RAM: 2GB and above HDD: 250 GB and above	25	1:1
3	Application Software	MS Office 2007 and above	25	1:1
4	Operating System	Windows 7 and above	25	1:1
5	Anti-Virus Software	Latest	1	1:25

Acknowledgement

The **Ministry of Labor and Skills** wishes to thank and appreciation for the trainers who donated their effort and time to develop this outcome based curriculum for the TVET program Hardware and Networking Service Level I. We also thank all regional TVET Colleges for active facilitation of their trainers for the development of this curriculum.

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