COMPETENCY STANDARD

Computer Operation

Level: 02

(ICT Sector)

Competency Standard Code: CS-ICT-CO-L2-EN-V1

National Skills Development Authority
Chief Advisor's Office
Government of the People's Republic of Bangladesh

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This Competency Standard for Computer Operation is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been developed by NSDA in association with ICT Sector ISC, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "Computer Operation" is selected as one of the priority occupations of ICT Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the Bangladesh National Qualification Framework (BNQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A competency standard is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representatives from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in the Informal Sector.

Competency standards describe the skills, knowledge, and attitude needed to perform effectively in the workplace. CS acknowledges that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of several units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

Competency Standards for National Skills Certificate – Level-2 in Computer Operation in ICT Sector

Level Descriptors of BNQF 1-6

Level & Job Classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate, and evaluate.	Specialized and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under the guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. The bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills are required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts to respond to workplace requirements. Resolve technical issues to respond to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills are required to use relevant information to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature, and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and be responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, and communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	An elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills are required to carry out simple tasks. Interpret occupational terms and present the results of own work within a guided work environment/ under supervision.	Work under direct supervision in a structured context with a limited range of responsibilities.

List of Abbreviations

General	
NSDA	National Skills Development Authority
BMET	Bureau of Manpower Employment and Training
ILO	International Labor Organization
ISC	Industry Skills Council
NPVC	National Pre-Vocation Certificate
NSQF	National Skills Qualifications Framework
PPP	Public Private Partnership
SCVC	Standards and Curriculum Validation Committee
SEIP	Skills for Employment Investment Program
STP	Skills Training Provider
UoC	Unit of Competency
Occupation Specific	
GUI	Graphical User Interface
ESD	Electro-static Discharge
ICT	Information Communication Technology (ICT)
KPI	Key Performance Indicator
LCD	Liquid Crystal Display
OSH	Occupational safety and health
PPE	Personal protective equipment
RAM	Random Access Memory
USB	Universal serial bus

Approval of Competency Standard

Approved by
38th Authority Meeting of NSDA
Held on   26.11.2024

Contents

Competency Standards for National Skill Certificate – 2 in Computer Operation in ICT Sector

Course Structure

SL	Unit Code and Title		UoC Level	Nominal Duration (Hours)
Generic Units of Competencies				**20**
1.	GU-012-L2-V1	Communicate in the Workplace	2	20
Sector-Specific Units of Competencies				**60**
2.	SU-ICT-01-L2-V1	Practice Occupational Safety and Health (OSH) Standard in ICT	2	15
3.	SU-ICT-04-L3-V1	Comply to Ethical Standards in the ICT Workplace	3	15
4.	OU-ICT-05-L2-V1	Use Internet and Access Resources	2	30
Occupation-Specific Units of Competencies				**280**
5.	OU-ICT-CO-01-L2-V1	Carry Out Essential Computer Activities	2	20
6.	OU-ICT-CO-02-L2-V1	Perform Document Editing and Formatting	2	100
7.	OU-ICT-CO-03-L2-V1	Perform Tasks in Spreadsheet Application	2	90
8.	OU-ICT-CO-04-L2-V1	Design Slides using Presentation Application	2	50
9.	OU-ICT-CO-05-L2-V1	Perform Basic Troubleshooting	2	20
Total Nominal Learning Hours				**360**

Units & Elements at Glance

Generic Units of Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
GU-14-L3-V1	Carryout Communication with Clients	1. Interpret client-based communication and etiquette 2. Prepare documents for endeavor/working environment/platform 3. Conduct communication	20

Sector-Specific Units of Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SU-ICT-03-L3-V1	Maintain Occupational Safety and Health (OSH) in IT Workplace	1. Identify Safety and Health Issues in the IT Workplace 2. Apply Personal Health and Safety Practices 3. Manage and Report Hazards	15
SU-ICT-03-L3-V1	Comply to Ethical Standards in the ICT Workplace	1. Respond to Emergencies 2. Uphold the requirements of clients 3. Deliver quality products and services 4. Maintain professionalism at workplace 5. Maintain workplace code of conduct.	15
OU-ICT-05-L3-V1	Use Internet and Access Resources	1. Prepare resources for sharing 2. Access Resources using the internet 3. Use e-mail	30

Occupation Specific Units of Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
OU-ICT-CO-01-L2-V1	Carry Out Essential Computer Activities	1. Access features of personal computer 2. Navigate and personalize the desktop environment 3. Organize files and folders	20
OU-ICT-CO-02-L3-V1	Perform Document Editing and Formatting	1. Prepare for the Job 2. Practice Typing 3. Create Document 4. Format Document 5. Print & Transfer Document	100
OU-ICT-CO-03-L3-V1	Perform Task in Spreadsheet Application	1. Prepare for the Job 2. Create Spreadsheet 3. Use formulas and functions 4. Perform Data Preparation and Visualization 5. Print and Transfer Document	90
OU-ICT-CO-04-L3-V1	Design Slides using Presentation Application	1. Prepare for the Job 2. Create Presentation 3. Furnish presentation 4. Apply slide master 5. Print & Transfer presentation	50
OU-ICT-CO-06-L3-V1	Perform Basic Troubleshooting	1. Identify the problem 2. Fix the operational problems	20

Generic Units of Competencies

Unit code and Title	**GU012L2V1: Communicate in the Workplace**
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSAs) required to communicate in the workplace. It includes the use of verbal and written forms of communication to receive, interpret, convey, and document information/ instruction using appropriate communication equipment.
Nominal Hours	**20 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables Training Components
1. Receive verbal instructions.	1.1 Instructions are accessed and interpreted 1.2 Questions are asked to clarify understanding or gain more information. 1.3 Information/instruction is recorded.
2. Interpret verbal and written information/ instruction	2.1 **Written instructions** are interpreted. 2.2 Work **signage's** are properly responded. 2.3 Routine written instructions are followed in sequence. 2.4 Feedback is given to the workplace supervisor.
3. Convey instructions using verbal and written forms of communication	3.1 Relevant **communication** methods are used to transmit instructions. 3.2 Appropriate non-verbal communication is used. 3.3 Channels of communication are identified and followed 3.4 Communication **tools and equipment** are operated and faults are identified and reported. 3.5 Information is conveyed using appropriate **forms**.
3. Complete written documentation	4.1 All required **documentation** is completed 4.2 Workplace data are recorded 4.3 Written information/instruction is passed to personnel.
5. Participate in workplace meetings and discussions	4.1 Meetings are attended regularly and on time. 4.2 Meeting inputs are consistent with the meeting purpose and established protocols. 4.3 Opinions are expressed without interruption. 4.4 Meeting outputs are processed and implemented.
Range of Variables	
Variable	**Range** (may include but not limited to):
1. Written instructions	1.1 Supervisor's/Manager's Instructions 1.2 Memoranda 1.3 Rules and Regulations 1.4 Signage 1.5 Approved Work Plan 1.6 External communications
2. Workplace guidelines	2.1 Labor Policies and Guidelines 2.2 Written Instructions 2.3 Operations Manual 2.4 Organizational Manuals 2.5 Quality Assurance Handbook

3. Signage	3.1 On-site direction signs 3.2 Common site warnings 3.3 Location signs 3.4 Traffic signs
4. Communication	4.1 Verbal instructions 4.2 Written instructions 4.3 Online communication
5. Tools and machinery	5.1. Telephone 5.2. Mobile Phone 5.3. Fax machines 5.4. Two-way radio 5.5. Computers 5.6. Forms 5.7. Memo
6. Forms	6.1. Memorandum 6.2. Requisitioning Form 6.3. Personnel Form 6.4. Safety Report Form
7. Documentation	7.1. Reports (Monthly, Quarterly, Half-Yearly, Annual) 7.2. Plans (Strategic Plan, Operational Plan, Monthly Schedule) 7.3. Monitoring and Evaluation Report 7.4. Minutes of Meetings

Evidence Guide
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 demonstrated knowledge of workplace procedures in receiving, interpreting and conveying verbal & written communication. 1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables.
2. Underpinning Knowledge	2.1 Workplace Communication Policies, Standards and Procedures 2.2 Verbal and Non-verbal Communication 2.3 Modes of Communication 2.4 Communication Equipment: Types, Uses and Faults 2.5 Channels of Communication
3. Underpinning Skills	3.1 Receiving verbal instructions. 3.2 Interpreting verbal and written information/ instruction 3.3 Conveying instructions using verbal and written forms of communication 3.4 Completing written documentation 3.5 Participating in workplace meetings and discussions
4. Underpinning Attitude	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in workplace

5. Resource Implications	The following resources must be provided: 5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor.

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under Bangladesh National Qualification Framework (BNQF). Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Sector Specific Units of Competencies

Unit Code and Unit Title	SU-ICT-01-L2-V1: Practice Occupational Safety and Health (OSH) Standard in ICT
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to Practice Occupational Safety and Health (OSH) Standards in ICT. It includes identifying hazards and risk in the ICT Environment, applying Personal Health and Safety Practices, managing and Report Hazards, and responding to Emergencies
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria
1. Identify hazards and risks in the ICT Environment	1.1 **Common safety and health risks** specific to IT workplaces are identified. 1.2 **Workplace types and layout** and **conditions** are assessed for compliance with OSH standards. 1.3 Types and appropriate usage of **Personal Protective Equipment (PPE)** for IT-related tasks are identified. 1.4 **Hazards** are identified in the ICT environment
2. Apply Personal Health and Safety Practices	2.1 **Ergonomically sound practices** are implemented including proper workstation setup and posture. 2.2 **Preventive measures** are taken to reduce physical and mental strain. 2.3 Cleanliness and orderliness in the workplace are maintained to reduce risks. 2.4 Personal Protective Equipment (PPE) is worn and stored properly after use. 2.5 Workplace safety conditions are inspected and issues are reported to the designated authority.
3. Manage and Report Hazards	3.1 Routine checks of the immediate work area are conducted to identify hazards and risks. 3.2 **Corrective actions** are taken to mitigate risks within the scope of responsibility. 3.3 Internet and social media addiction is minimized to enhance workplace focus and safety. 3.4 Detail records of incidents, hazards, and corrective actions are maintained as per workplace standard 3.5 Hazards, risks, and incidents are reported accurately and promptly to the designated authority.

4. Respond to Emergencies	4.1 **Emergencies** are identified and reported according to workplace protocols. 4.2 **Workplace emergency response procedures** are followed effectively as per organizational policy during incidents. 4.3 Basic first aid is administered or assistance is sought from qualified personnel as required.

Range of Variables

Variable	Range (may include but not limited to):
1. Common safety and health risks	1.1 Ergonomics 1.2 Repetitive strain injuries 1.3 Eye strain 1.4 Radiation 1.5 Carpal tunnel syndrome 1.6 Electrical hazards.
2. Workplace Type and layout	2.1 Hardware servicing labs 2.2 Software development rooms 2.3 IT Training Lab 2.4 Server room 2.5 Networking infrastructure
3. Personal Protective Equipment (PPE)	3.1 Aprons, 3.2 Earplugs 3.3 Face mask 3.4 UV-protected eye ware 3.5 Anti-static wristband 3.6 Anti-static shoes. 3.7 Gloves

4. Hazards	4.1 Physical Hazard
	   a. Cables running across the floor
	   b. Slippery floor
	   c. Dust
	4.2 Mechanical Hazard
	   a. Computer case
	4.3 Chemical Hazard
	   a. Display cleaning chemical
	   b. Keyboard cleaning chemical

5. Ergonomically sound practices	5.1 Using adjustable seating 5.2 Maintaining proper posture 5.3 Ensuring proper lighting.
6. Preventive measures	6.1. Regular breaks 6.2. Adequate lighting 6.3. Time management 6.4. Ergonomic furniture 6.5. Adequate ventilation

7. Emergencies	7.1 Equipment failures/malfunctions
	7.2 Fires
	7.3 Electrical fires
	7.4 Explosions
	7.5 Natural disasters.
8. Workplace emergency response procedures	8.1 First aid
	8.2 Emergency treatment
	8.3 Firefighting protocols
	8.4 Evacuation plans

Evidence Guide

1. Critical aspects of competency	Assessment required evidence that the candidate:
	1.1 Identified and mitigated OSH issues in IT workplaces.
	1.2 Ensured a safe and hygienic work environment.
	1.3 Reported hazards and followed emergency procedures.
	1.4 Prevented and addressed social media/internet addiction.
	1.5 Demonstrate the ability to identify and manage workplace hazards.
	1.6 Demonstrated observance of safety procedures and ergonomic practices.
	1.7 Followed emergency response procedures effectively.
2. Underpinning knowledge	2.1 OSH policies, regulations, and standards for IT workplaces.
	2.2 Common hazards in IT environments
	2.3 Emergency response procedures and safety protocols.
	2.4 Principles of Occupational Safety and Health (OSH).
	2.5 Common IT workplace hazards and associated risks
	2.6 Workplace safety regulations and organizational policies
3. Underpinning skills	3.1 Safe operation and maintenance of IT equipment and tools
	3.2 Practical application of ergonomic practices
	3.3 Documenting incidents and communicating with relevant personnel
	3.4 Effective communication of safety concerns to peers and supervisors
	3.5 Ability to respond promptly to emergencies
4. Required attitudes	4.1 Commitment to maintaining a safe and healthy work environment
	4.2 Proactive approach to identifying and mitigating risks
	4.3 Accountability for personal and workplace safety
	4.4 Cooperation and respect for peers, supervisors, and safety policies
	4.5 Willingness to participate in training and continuous improvement efforts
	4.6 Mindfulness to avoid workplace distractions like excessive use of social media
5. Resource implication	5.1 IT workplace setup (actual or simulated).
	5.2 PPE and safety equipment.
	5.3 Workplace policies and emergency response documentation.

6. Methods of Assessment	6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning
7. Context of Assessment	7.1. Competency assessment must be done in NSDA accredited center. 7.2. Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	**SU-ICT-04-L3-V1: Comply with Ethical Standards in the ICT Workplace**
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to comply with ethical standards in the ICT workplace. It specifically includes the task of upholding the requirements of clients, delivering quality products and services, maintaining professionalism at the workplace, and maintaining a workplace code of conduct.
Nominal Hours	**15 Hours**

Elements of Competency	**Performance Criteria** **Bold and Underlined** terms are elaborated in the Range of Variables
1. Uphold the requirements of clients	1.1 Clients' requirements are identified. 1.2 Confidentiality of information is maintained following workplace policies / organizational policies/ national legislation. 1.3 Potential conflicts of interest are identified and involved parties of potential conflicts are notified. 1.4 Proprietary rights of client/customer are asserted.
2. Deliver quality products and services	2.1. Products and services are provided according to the client's requirements. 2.2. Work is completed as per standards. 2.3. Quality processes are implemented when developing products and services.
3. Maintain professionalism at the workplace	3.1 Work processes are delivered as per standards. 3.2 Skills, knowledge, and qualifications are presented professionally. 3.3 Services and products developed by self and others are delivered as per workplace standards. 3.4 Unbiased and objective information is provided to clients. 3.5 Realistic estimates for time, cost, and delivery of outputs are presented during negotiation.
4. Maintain workplace code of conduct.	4.1 Workplace codes of conduct are interpreted 4.2 Workplace code of conduct is followed.

Range of variables

Variables	**Range** (may include but not limited to):

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet the requirements of the current version of the Unit of Competency.

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 asserted proprietary rights of client/customer. 1.2 completed work to industry and international standards. 1.3 implemented quality processes when developing

		products and services.
	1.4	delivered services and products developed by self and others.
	1.5	provided unbiased and objective information to clients.
	1.6	followed the workplace code of conduct.
2. Underpinning knowledge	2.1.	Corporate code of confidentiality of information
	2.2.	organizational policies, national legislation, and workplace policies about the IT sector
	2.3.	Law and regulations about proprietary rights
	2.4.	Quality processes for products and services
	2.5.	Procedure of providing client information
	2.6.	Method of estimating for time, cost, and delivery of products and services
	2.7.	Workplace code of conduct in the IT sector
3. Underpinning Skills	3.1.	Upholding confidentiality of information following organizational policies, national legislation, and workplace policies
	3.2.	Asserting proprietary rights of client/customer
	3.3.	Completing work following industry and international standards
	3.4.	Implementing quality processes when developing products and services
	3.5.	Delivering correctly services and products developed by self and others
	3.6.	Providing unbiased and objective information to clients.
	3.7.	Presenting realistic estimates for time, cost, and delivery of outputs during negotiation
	3.8.	Following the workplace code of conduct
4. Required Attitudes	4.1	Commitment to occupational safety and health.
	4.2	Promptness in carrying out activities.
	4.3	Sincere and honest to duties.
	4.4	Eagerness to learn the new skills.
	4.5	Environmental Concerns.
	4.6	Respect for the rights of peers, subordinates, and seniors at the workplace.
	4.7	Communicates clearly and effectively with peers, subordinates, and supervisors in the workplace.
	4.8	Maintains a clean and orderly workstation.
	4.9	Ensures timeliness and tidiness in daily tasks.
5. Resource Implications	The following resources must be provided:	
	5.1	Relevant tools, Equipment, software, and facilities needed to perform the activities.
	5.2	Required learning materials.

6. Methods of Assessment	6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning
7. Context of Assessment	7.1. competency competency assessment must be done in NSDA accredited center. 7.2. Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	OU-ICT-05-L3-V1: Use Internet and Access Resources
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to use the internet and access resources. It specifically includes the task of preparing resources for sharing, accessing resources using the internet, and using and managing e-mail.
Nominal Hours	**30 Hours**

Elements of Competency	Performance Criteria **Bold & Underlined** terms are elaborated in the Range of Variables
1. Prepare resources for sharing	1.1 **The document** is scanned with the required **file format** 1.2 The file is converted using **file conversion tools** 1.3 File **compression tools** are used for compression and extraction. 1.4 Multiple PDF documents are joined (if required)
2. Access Resources using the Internet	2.1. Internet **browser** is selected and installed. 2.2. **Browser setting** is carried out for smooth operation. 2.3. Resources are accessed using **Search engines.** 2.4. Resources are preserved in local storage.
3. Use e-mail	3.1 E-mail account is created with a selected **email service provider.** 3.2 **E-mail operations** are performed as required 3.3 E-mail messages are printed.

Range of Variables	
Variable	Range (may include but not limited to):
1. Document	1.1 Single Page document 1.2 Multiple-page document 1.3 Picture 1.4 Signature
2. File format	2.1. .jpeg 2.2. .png 2.3. .pdf

3. File conversion tools	3.1 Offline Tools (Default application)
	   3.1.1. .doc/ .docx to .pdf,
	   3.1.2. .xls/ .xlsx to .pdf,
	   3.1.3. .ppt/ .pptx to .pdf,
	   3.1.4. .jpg to .pdf
	
	3.2 Offline Tools (PDF to Others)
	   3.2.1. PDF converter
	   3.2.2. PDF Editor
	   3.2.3. Foxit PDF Editor

		3.2.4. Adobe PDF Editor
		
		3.3 Online Tools
		  3.3.1. www.ilovepdf.com
		  3.3.2. www.pdf2go.com
		  3.3.3. https://pdf2doc.com/

4.	Compression tools	4.1. WinZip 4.2. WinRAR 4.3. 7zip
5.	Browsers	5.1. Microsoft Edge 5.2. Google Chrome 5.3. Mozilla Firefox 5.4. Opera 5.5. Safari 5.6. Duronto browser
6.	Browser setting	6.1 Bookmark 6.2 Privacy and security 6.3 Language 6.4 Download 6.5 Cookies 6.6 History
7.	Search engines	7.1 google 7.2 Yahoo 7.3 Ask 7.4 MSN 7.5 Bing 7.6 Pipilika 7.7 Duckduckgo 7.8 AltaVista

8.	E-mail Services Provider	8.1. Free mail services
		  8.1.1. Gmail
		  8.1.2. Yahoo

9.	Email Operations	9.1. Compose
		9.2. Send
		  9.2.1. Attachment
		  9.2.2. Single Recipient
		  9.2.3. Multiple Recipient
		  9.2.4. CC
		  9.2.5. BCC
		9.3. Receive
		9.4. Reply
		9.5. Forward
		9.6. Delete

Evidence Guide
The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet all requirements of the current version of the Unit of Competency.

1.Critical Aspects of Competency	Assessment required evidence that the candidate:
	1.1 prepared resources for sharing:
	       Scanning, converting, compressing, and merging files
	1.2 accessed resources using the Internet:
	       Installing and configuring browsers, using search engines, and managing downloads.
	1.3 used and operated e-mail:
	       Creating accounts, composing, sending, receiving, replying, forwarding, and printing emails.

2.Underpinning knowledge	2.1 Understanding the Internet and the World Wide Web (WWW). 2.2 Familiarity with URLs, web browsers, and websites. 2.3 Web Browsers like Chrome, Firefox, Edge, etc. 2.4 Websites 2.5 URLs 2.6 Search Engines like Google, Bing, DuckDuckGo, etc. 2.7 Effective search strategies for locating resources online 2.8 Awareness of copyright and fair use policies. 2.9 Bookmarks, privacy, cookies, and history cleaning. 2.10 History cleaning process. 2.11 Platforms for connecting with others and sharing information 2.12 The importance of equal access to technology and the Internet 2.13 Use of file conversion tools (offline and online) for various formats: DOC, PDF, JPG, XLS, etc. 2.14 Use of file Compressing and extracting tools like WinRAR, 7zip, or WinZip. 2.15 Managing different document types: single-page, multi-page, images, and signatures. 2.16 Creating accounts on platforms like Gmail or Yahoo. 2.17 Performing email operations (sending with CC/BCC, attaching files, replying, forwarding). 2.18 Understanding online responsibilities, including privacy, respectful communication, and data security.
3.Underpinning skills	3.1 Accessing and sharing resources from the Internet. 3.2 Downloading/uploading files, documents, and videos from/to websites. 3.3 Managing email operations with attachments, recipients, and printing 3.4 Performing responsibly and ethically online. 3.5 Respecting copyright laws and promoting safe Internet use.
4.Required attitudes	4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties.

	4.4 Eagerness for understanding processes related to document preparation and email management. 4.5 Environmental Concerns. 4.6 Respect for the rights of peers, subordinates, and seniors at the workplace. 4.7 Ensuring the confidentiality and reliability 4.8 Communicates clearly and effectively with peers, subordinates, and supervisors in the workplace. 4.9 Acknowledging the importance of equal access to technology. 4.10 Maintains a clean and orderly workstation. 4.11 Ensures timeliness and tidiness in daily tasks.
5.Resource implications	The following resources must be provided: 5.1 Workplace (actual or simulated). 5.2 Projector or interactive whiteboard for demonstrations. 5.3 Desktop or laptop computers with sufficient specifications to run Pre-installed software. 5.4 Printer (laser or inkjet) with various printing capabilities (single/both sides, odd/even pages). 5.5 USB pen drives, portable hard drives, and optical disks for file transfer practice. 5.6 Internet access for cloud-based applications like Google Docs and updates for installed software. 5.7 Adjustable chairs and desks for ergonomic typing practice. 5.8 Training manuals, Handouts, or guides detailing software use, customization, animations, and file management. 5.9 Examples/Pre-designed presentation templates for different purposes (business, educational, portfolios 5.10 Operating Systems: Windows, macOS, or Linux pre-installed on training computers. 5.11 Web Browsers: Google Chrome, Mozilla Firefox, Microsoft Edge, Opera, Safari 5.12 File Conversion Tools: Offline Tools: Microsoft Office Suite (Word, Excel, PowerPoint with PDF export options). Adobe Acrobat or Foxit PDF Editor for PDF editing and conversion. Online Tools: Websites like ilovepdf.com, pdf2go.com, and pdf2doc.com. 5.13 Compression Tools: WinRAR, 7zip, and WinZip. 5.14 Free email service providers (e.g., Gmail, Yahoo) for hands-on training in email operations. 5.15 Search engines for practice: Google, Bing, DuckDuckGo, etc. 5.16 Training manuals covering the curriculum on email operations, file management, and internet usage.

	5.17 Short, practical video tutorials on tasks like scanning documents, compressing files, and creating emails. 5.18 Single-page and multi-page documents in various file formats (e.g., .docx, .pdf, .jpg). 5.19 Signature and image files for editing and merging exercises.
6.Methods of assessment	Methods of assessment may include but are not limited to: 6.1 Written test; 6.2 Demonstration; 6.3 Oral questioning;
7.Context of assessment	7.1 Competency assessment must be done in NSDA accredited center. 7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Occupation Specific Units of Competencies

Unit Code and Title	OU-ICT-CO-01-L2-V1: Carry Out Essential Computer Activities
Unit Descriptor	This unit covers the knowledge, skills, and attitude required to operate a personal computer. It specifically includes the requirements of starting the computer and accessing features, navigating and personalizing the desktop environment, and organizing files and folders.
Nominal Hours	20 hours
Elements of Competency	**Performance Criteria** **Bold and underlined** terms are elaborated in the range of variables
1. Access features of personal computer	1.1 **Ergonomic requirements** and **OSH issues** are observed for ensuring a safe working environment. 1.2 The computer is started or logged on according to user procedures. 1.3 Personal Computer and all the Peripherals are checked and ensured operational as per job requirement. 1.4 Basic functions and features are identified using system information. 1.5 **Common applications** of Operating Software are accessed.
2. Navigate and personalize the desktop environment	2.1 Desktop icons are selected, opened, and closed 2.2 Multiple windows are opened, resized, and closed 2.3 Desktop personalization is performed. 2.4 The start menu and taskbar are customized according to job requirements
3. Organize files and folders	3.1 Folders are created with the appropriate name 3.2 Files are created and organized in appropriate folders 3.3 Rename folders and files as required 3.4 Identify folder and **file attributes** 3.5 Move folders and files from one place to another using **different techniques** as required. 3.6 Folders and files are searched 3.7 Deleted folders and files are restored as necessary 3.8 Transfer folders and files to **appropriate media** where necessary
Range of Variables	
Variable	**Range** (May include but not limited to:)
1. Ergonomic requirements	1.1 Avoiding radiation from computer screens 1.2 Screen position 1.3 Chair height, seat, and back adjustment 1.4 Workstation height and layout 1.5 Document holder 1.6 Keyboard and mouse position 1.7 Lighting 1.8 Noise minimization

		1.9 Posture
		1.10 Footrest

2.	Occupational safety and health (OSH) issues	2.1. OSH guidelines related to the:
		    2.1.1. Use of the screen equipment,
		    2.1.2. Computing equipment and peripherals
		    2.1.3. Ergonomic workstations,
		    2.1.4. Security procedures,
		    2.1.5. Customization requirements
		2.2. Statutory requirements

3.	Common applications	3.1 Note pad 3.2 Paint 3.3 Media player 3.4 Calculator 3.5 Sticky Notes 3.6 Snipping Tool

4.	File attributes	4.1 File format
		    4.1.1. .txt
		    4.1.2. .jpg, .bmp, .gif, etc.
		    4.1.3. .mp4, .mpeg, etc.
		4.2 Dates
		4.3 Size

5.	Different techniques	5.1 Copy, Cut and Paste 5.2 Drag and Drop
6.	Appropriate media	6.1 External hard drive 6.2 Locations on a Network/Cloud 6.3 USB/ Flash/Thumb drives

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet the requirements of the current version of the unit of competency.

| 1. Critical aspects of competency | Assessment required evidence that the candidate:
1.1 Started the computer and logged in properly as per user procedures.
1.2 Checked the operational status of peripherals.
1.3 Accessed and understood system information and basic software applications.
1.4 Selected, opened, resized, and closed desktop icons and windows.
1.5 Customized the desktop, taskbar, and start menu to meet job requirements.
1.6 Created, renamed, moved, and deleted files and folders.
1.7 Identified file attributes such as format, size, and date.
1.8 Transferred files and folders to appropriate media.
1.9 Restored deleted files when necessary. |

2. Underpinning knowledge	2.1	Ergonomic principles for safe workstation setup (e.g., screen positioning, lighting, chair adjustments).
	2.2	OSH guidelines for using screen equipment and computer peripherals.
	2.3	Hazards in the IT workplace and methods to mitigate them.
	2.4	Importance of Personal Protective Equipment (PPE).Computer peripherals
	2.5	Identifying computer peripherals, I/O ports, and power-related symbols.
	2.6	Knowledge of the structure and functions of files, folders, and desktop elements.
	2.7	Different types of software applications and operating systems.
	2.8	Proper computer shutdown and maintenance processes.
	2.9	Procedures for organizing files and folders systematically.
	2.10	Methods for maintaining a clean and orderly workstation.
3. Underpinning skills	3.1	Identify and use computer peripherals, including mouse, keyboard, and monitors.
	3.2	Locate and use electrical outlets effectively.
	3.3	Open and manage desktop icons, folders, and windows.
	3.4	Customize desktop settings to align with job requirements.
	3.5	Create, organize, and move files and folders using techniques like copy-paste and drag-and-drop.
	3.6	Search for and restore files when needed.
	3.7	Transfer files to external drives or cloud storage.
4. Required attitude	4.1	Commitment to occupational safety and health.
	4.2	Promptness in carrying out activities.
	4.3	Sincere and honest to duties.
	4.4	Eagerness to learn the new skills.
	4.5	Environmental Concerns.
	4.6	Respect for the rights of peers, subordinates, and seniors at the workplace.
	4.7	Communicates clearly and effectively with peers, subordinates, and supervisors in the workplace.
	4.8	Maintains a clean and orderly workstation.
	4.9	Ensures timeliness and tidiness in daily tasks.
5. Resource implication	5.1	Workplace (actual or simulated).
	5.2	Desktop or laptop computer with updated operating system (e.g., Windows, macOS, or Linux).
	5.3	Projector or interactive whiteboard for demonstrations.
	5.4	Keyboard and mouse (wired or wireless).
	5.5	Monitor with ergonomic features (adjustable screen tilt and brightness).
	5.6	Speakers or headphones (if required).
	5.7	Printer and scanner.
	5.8	External storage devices (USB flash drives, external

	hard drives).
	5.9 Document holder or adjustable stands.
	5.10 Surge protectors and Uninterruptible Power Supply (UPS).
	5.11 Reliable internet connection for accessing cloud storage and system updates.
	5.12 Basic Applications: Notepad, Paint, Media Player, Calculator, Sticky Notes, and Snipping Tool.
	5.13 Access to cloud storage solutions (e.g., Google Drive, OneDrive).
	5.14 Ergonomic Workstation
	5.15 Sufficient lighting to avoid eyestrain.
	5.16 User guides for operating systems and common applications.
	5.17 Tutorials on desktop navigation, file organization, and basic troubleshooting.
	5.18 Documents covering ergonomic principles and workplace safety protocols.
	5.19 Instructions on proper equipment handling and use of PPE.
	5.20 Manuals for computer hardware and peripherals.
	5.21 Guides for customizing desktop environments and managing files.
	5.22 Documentation explaining file format attributes, and organizational techniques like drag-and-drop and copy-paste.
	5.23 Microfiber cloths, cleaning solutions, and compressed air for maintaining equipment.
6. Methods of assessment	6.1 Written test
	6.2 Demonstration
	6.3 Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited center.
	7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

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Unit Code Title	**OU-ICT-CO-02-L2-V1: Perform Document Editing and Formatting**
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to Perform Document Editing and Formatting. This specifically includes preparing for the job, practicing typing, creating documents, formatting documents, and printing & transferring documents.
Nominal Hours	**100 Hours**

Elements of Competency	Performance Criteria **Bold & Underlined** terms are elaborated in the Range of Variables)
1. Prepare for the Job	1.1 Safe work practices according to workplace requirements are observed and followed. 1.2 **Necessary Software** is checked and ensured operational as per job requirement. 1.3 Availability of required fonts for typing of Bangla and English are Ensured. 1.4 **Type of Documents** are identified to be prepared.
2. Practice Typing	2.1. Error-free typing in English is performed as per typing technique and keyboard layout. 2.2. Error-free typing in Bangla is performed as per typing technique and keyboard layout.
3. Create Document	3.1. A new document is created from blank/ library as per requirement. 3.2. Word options and ribbon display options are set as required. 3.3. **Page layout** is set as per job requirements. 3.4. **Contents** are inserted as per specification. 3.5. **Breaks Options** are applied as per requirement. 3.6. Find and replace operation is performed if required.
4. Format Document	4.1 **Formatting** is used as per instructions. 4.2 The document is saved in a specific directory/ destination with the appropriate **file format**.
5. Print & Transfer Document	5.1 Printer is selected and **print settings** are confirmed 5.2 Appropriate size of paper is ensured as required 5.3 Print preview is checked 5.4 Document is Printed 5.5 Document is transferred using **Storage Media.**

Range of Variables

Variable	**Range** (may include but are not limited to):

1. Necessary Software's	1.1 Word Processing Application Software
	       1.1.1. Microsoft Word
	       1.1.2. LibreOffice Writer
	       1.1.3. WPS Office Free Writer
	       1.1.4. Google Doc
	1.2 Typing tutor software for English and Bengali
	1.3 Bangla Typing Software
	    a. Bijoy
	    b. Avro

2. Type of documents	2.1 Application 2.2 CV 2.3 Cover letter 2.4 Report

3. Page layout	3.1. Page Orientations
	3.2. Page Size
	3.3. Margin
	       3.3.1 Top
	       3.3.2 Bottom
	       3.3.3 Left
	       3.3.4 Right
	3.4. Header and Footer
	3.5. Page Number
	3.6. Columns

4. Contents	4.1 Text
	4.2 Table
	       4.2.1. Row
	       4.2.2. Column
	       4.2.3. Merge & Split
	       4.2.4. Alignment
	       4.2.5. Repeat Header Row
	4.3 Illustrations
	       4.3.1 Picture
	       4.3.2 Shapes
	       4.3.3 Text Box
	       4.3.4 Screenshot
	4.4 Symbols

5. Breaks Options	5.1 Page Break 5.2 Column Break

6. Formatting	6.1 Font
	       6.1.1. Font Face, Size, Color
	       6.1.2. Font Style (Bold, Italic, Underline)
	6.2 Paragraph
	       6.2.1 Alignment
	       6.2.2 Indentation
	6.3 Listing (Bullet, Numbering)

	6.4 Line Spacing 6.5 Image size with wrapping 6.6 Format Painter
7. File Format	7.1 .doc 7.2 .docx 7.3 .pdf
8. Print Settings	8.1 Paper size 8.2 Single/Both side Print. 8.3 Odd/Even Page print 8.4 Collated 8.5 Page Orientation 8.6 Margins 8.7 pages per sheet
9. Storage Media	9.1 USB Pen drive 9.2 Portable Hard drive 9.3 Optical Disk

Evidence Guide
The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet all requirements of the current version of the Unit of Competency.

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 demonstrated the ability to safely prepare for the job, 1.2 ensured software readiness 1.3 identified document types. 1.4 performed error-free typing in both English and Bangla using correct typing techniques and keyboard layouts. 1.5 created new documents 1.6 configured page layouts 1.7 inserted and organized contents 1.8 applied breaks and formatting options as required. 1.9 ensured proper formatting of fonts, paragraphs, images, and lists 1.10 saved documents in specified formats and directories. 1.11 performed print settings to print documents accurately 1.12 transfered files using appropriate storage media.

2. Underpinning knowledge	2.1 Knowledge of safe work practices and workplace hazard mitigation in the IT environment. 2.2 Hazard in the IT workplace. 2.3 Keyboard layout for English and Bangla typing. 2.4 Margin and page layout. 2.5 Understand the different types of documents. 2.6 File format/extension. 2.7 Save and Save As functionalities 2.8 Printing process: Printer settings, paper orientation, size adjustments, and print preview processes.
3. Underpinning skills	3.1 Accessing features of personal computer 3.2 Navigating and personalizing the desktop environment 3.3 Organizing files and folders 3.4 Saving documents in specified directories and formats. 3.5 Transferring files using USB drives, portable hard drives, or optical disks.
4. Required attitudes	4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn the new skills. 4.5 Environmental Concerns. 4.6 Respect for the rights of peers, subordinates, and seniors at the workplace. 4.7 Communicates clearly and effectively with peers, subordinates, and supervisors in the workplace. 4.8 Maintains a clean and orderly workstation. 4.9 Ensures timeliness and tidiness in daily tasks.
5. Resource implication	The following resources must be provided: 5.1 Workplace (actual or simulated). 5.2 Projector or interactive whiteboard for demonstrations. 5.3 Desktop or laptop computers with sufficient specifications to run word processing applications smoothly. 5.4 Printer (laser or inkjet) with various printing capabilities (single/both sides, odd/even pages). 5.5 USB pen drives, portable hard drives, and optical disks for file transfer practice. 5.6 Internet access for cloud-based applications like Google Docs and updates for installed software. 5.7 Comfortable keyboards with Bangla and English layouts. 5.8 Adjustable chairs and desks for ergonomic typing practice. 5.9 Word Processing Applications: 5.10 Microsoft Word (preferred standard), LibreOffice Writer, WPS Office Writer, and Google Docs as alternatives. 5.11 Typing Tutor Software: English (e.g., TypingMaster). Bangla typing software (e.g., Bijoy, Avro).

	5.12 PDF Reader/Converter: Tools like Adobe Acrobat Reader or online PDF converters for file format training.
	5.13 Step-by-step guides for using word processors, practicing typing, formatting, printing, and file transfer.
	5.14 Typing Practice Sheets for Bangla and English typing exercises.
	5.15 Pre-designed templates for different types of documents (e.g., CVs, cover letters, reports).
	5.16 Quick Reference Cards: Shortcut keys, formatting tips, and commonly used commands in word processors.
	5.17 Posters and handouts emphasizing safe work practices and ergonomic principles.
6. Methods of assessment	Methods of assessment may include but are not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited center. 7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	**OU-ICT-CO-03-L2-V1: Perform Task in Spreadsheet Application**
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to Perform Tasks in Spreadsheet Applications. This specifically includes the task of preparing for the Job, creating spreadsheets, applying formulas and functions, performing data preparation and visualization, and printing and transferring documents.
Nominal Hours	**90 Hours**
Elements of Competency	**Performance Criteria** **Bold & Underlined** terms are elaborated in the Range of Variables
1. Prepare for the Job	1.1 Safe work practices according to workplace procedures are observed and followed. 1.2 **Necessary Software** is checked and ensured operational as per job requirement. 1.3 **Types of documents** are identified to be prepared.
2. Create Spreadsheet	2.1 Workbook is created from blank/ library as per requirement. 2.2 **Components of the spreadsheet interface** are identified 2.3 **Cell formatting** is performed as per **data type** 2.4 **Page layouts** are set as per job requirements. 2.5 Data **Contents** are inserted as per specification. 2.6 Find, Replace and Go-to operations are performed if required. 2.7 Workbook is saved in a specific directory/ destination as instructed with the appropriate **File format**.
3. Use formulas and functions	3.1. Formulas are used to transform data 3.2. Formulas are applied using **operators** 3.3. **Functions** are applied as per requirement
4. Perform Data Preparation and Visualization	4.1 Data Sorting is performed based on specific criteria 4.2 Data is filtered with different conditions. 4.3 **Chart** is created to effectively represent data.
5. Print and Transfer Document	5.1 Printer is selected and **print settings** are confirmed 5.2 Appropriate size of paper is ensured as required 5.3 Print preview is checked. 5.4 Workbook is Printed 5.5 Document is transferred using **Storage Media.**
Range of Variables	
Variable	**Range** (may include but are not limited to):

1. Necessary Software	1.1 Spreadsheet Application Software 1.2 Excel 1.3 Google sheet
2. Type of documents	2.1 Monthly budget 2.2 Salary sheet 2.3 Loan calculator 2.4 Invoice 2.5 Inventory list 2.6 Result sheet
3. Components of spreadsheet interface	3.1. Title bar 3.2. TAB 3.3. Ribbon 3.4. Formula Bar
4. Cell formatting	4.1 Alignment 4.2 Font 4.3 Border 4.4 Fill
5. Data type	5.1. Text 5.2. Number 5.3. Currency 5.4. Date 5.5. Time 5.6. Percentage

6. Page Layout Elements	6.1 Page Orientations
	6.2 Page Size
	6.3 Margin
	    6.3.1. Top
	    6.3.2. Bottom
	    6.3.3. Left
	    6.3.4. Right

7. Contents	7.1 Text
	    7.1.1 Wrap text
	    7.1.2 Merge
	7.2 Table
	    7.2.1. Row
	    7.2.2. Column
	    7.2.3. Merge & Split
	    7.2.4. Alignment
	        a. Top
	        b. Middle
	        c. Bottom
	        d. Left
	        e. Right

	f. Center 7.3 Symbols 7.4 Hyperlink
8. File format	8.1 .xls 8.2 .xlsx 8.3 .pdf

9. Operator	9.1 Arithmetic
	    9.1.1. + (Addition)
	    9.1.2. - (Subtraction)
	    9.1.3. * (Multiplication)
	    9.1.4. / (Division)
	9.2 Relation
	    9.3.1. = (Equal)
	    9.3.2. < (Less Than)
	    9.3.3. > (Greater Than)
	    9.3.4. <= (Less Than Equal)
	    9.3.5. >= (Greater Than Equal)
	    9.3.6. <> (Not Equal)

10. Functions	10.1. SUM 10.2. MAX 10.3. MIN 10.4. AVERAGE 10.5. AVERAGEA 10.6. RANK 10.7. IF 10.8. Count 10.9. CountA
11. Chart	11.1. Column 11.2. Line 11.3. Pie 11.4. Bar
12. Print settings	12.1. Print titles 12.2. Single/Both side Print. 12.3. Odd/Even Page print 12.4. Collated 12.5. Page Orientation 12.6. Paper Size 12.7. Margins 12.8. Page Per sheet
13. Storage Media	13.1. USB Pen drive 13.2. Portable Hard drive 13.3. Optical Disk

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet all requirements of the current version of the Unit of Competency.	

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 accurately applied formulas (e.g., arithmetic and logical operations) and functions (e.g., SUM, AVERAGE, IF) for data analysis and transformation. 1.2 performed data manipulation and prepared data for presentation using sorting, filtering, 1.3 formatted and visualized data through charts (e.g., column, pie, line). 1.4 set print titles for printing by adjusting margins, ensuring proper page orientation, and configuring print options like single/both sides, odd/even pages, and paper size.
2. Underpinning knowledge	2.1 Familiarity with spreadsheet applications (e.g., Excel, Google Sheets) and their specific functionalities. 2.2 Understand the different types of documents. 2.3 File format/extension. 2.4 Save and Save As functionalities 2.5 Printing process: 2.6 Printer settings, paper orientation, size adjustments, and print preview processes. 2.7 Understanding of file formats/extensions (e.g., .xls, .xlsx, .pdf). 2.8 Knowledge of data types (e.g., text, numbers, percentages, dates). 2.9 Different types of mathematical and logical functions. 2.10 Different types of arithmetic and relational operators for building formulas. 2.11 Sorting and filter 2.12 Use of Find, replace and Go To. 2.13 Different chart types (e.g., bar, pie) and their use in interpreting data trends and patterns. 2.14 Knowledge of setting print titles and print settings for printing by adjusting margins, ensuring proper page orientation, and configuring print options like single/both sides, odd/even pages, and paper size. 2.15 Documents transferring process using storage media like USB drives or optical disks.
3. Underpinning skills	3.1 Using Different data types like numbers, text, dates, and formulas

	3.2 Working with the fundamental unit of a spreadsheet, arranged in rows, columns, and cell
	3.3 Applying cell formatting (alignment, font, borders, fill).
	3.4 Creating Equations that perform calculations on data within cells
	3.5 Creating equations using symbols like +, -, *, /, and logical operators.
	3.6 Arranging data based on specific criteria and applying filters.
	3.7 Visualizing data trends and patterns using various chart types
	3.8 Saving files in the appropriate format and directory for accessibility.
4. Required attitudes	4.1 Commitment to occupational safety and health.
	4.2 Promptness in carrying out activities.
	4.3 Sincere and honest to duties.
	4.4 Ensuring accuracy in data entry, formula application, and visualization.
	4.5 Approaching tasks logically and efficiently to address data-related challenges.
	4.6 Eagerness to learn new skills.
	4.7 Environmental Concerns.
	4.8 Respect for the rights of peers, subordinates, and seniors at the workplace.
	4.9 Ensuring the confidentiality and reliability of prepared documents.
	4.10 Communicates clearly and effectively with peers, subordinates, and supervisors.
	4.11 Maintains a clean and orderly workstation.
	4.12 Ensures timeliness and tidiness in daily tasks.
5. Resource implication	The following resources must be provided:
	5.1 Workplace (actual or simulated).
	5.2 Projector or interactive whiteboard for demonstrations.
	5.3 Desktop or laptop computers with sufficient specifications to run spreadsheet analysis applications smoothly.
	5.4 Printer (laser or inkjet) with various printing capabilities (single/both sides, odd/even pages).
	5.5 USB pen drives, portable hard drives, and optical disks for file transfer practice.
	5.6 Internet access for cloud-based applications like Google Docs and updates for installed software.
	5.7 Adjustable chairs and desks for ergonomic typing practice.
	5.8 Spreadsheet applications like Microsoft Excel, Google Sheets, or equivalent.
	5.9 Training manuals or guides on spreadsheet basics and advanced functions.
	5.10 Worksheets or practice templates for hands-on tasks (e.g., budget sheets, salary sheets, loan calculators).

	5.11 Handouts explaining common formulas, functions, operators, and formatting tools. 5.12 Examples of professionally prepared spreadsheets (e.g., invoices, inventory lists, result sheets). 5.13 Sample datasets for sorting, filtering, and visualization exercises. 5.14 Quick Reference Cards: Shortcut keys, formatting tips, and commonly used commands in spreadsheet analysis. 5.15 Posters and handouts emphasizing safe work practices and ergonomic principles.
6. Methods of assessment	Methods of assessment may include but are not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited center. 7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

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Unit Code and Title	**OU-ICT-CO-04-L2-V1:** Design Slides using Presentation Application
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to Design Slides using Presentation. This specifically includes preparing for the job, creating and furnishing presentations, and printing and transferring presentations.
Nominal Hours	**50 Hours**

Elements of Competency	Performance Criteria **<u>Bold & Underlined</u>** terms are elaborated in the Range of Variables
1. Prepare for the Job	1.1 Safe work practices according to workplace procedures are observed and followed. 1.2 **<u>Necessary software</u>** is identified and interpreted. 1.3 **<u>Types of presentation</u>** are identified to be prepared.
2. Create Presentation	2.1 New presentation files from a blank template or a library are created as required. 2.2 Slide size is selected based on presentation needs. 2.3 Slides are inserted with suitable layouts according to presentation requirements. 2.4 **<u>Contents</u>** are added to slides accurately and effectively 2.5 The presentation is saved in the designated location using the correct **<u>file format</u>** as instructed. 2.6 Slides are checked with the **<u>presentation view</u>**.
3. Furnish presentation	3.1 Slide background customization is performed 3.2 **<u>Animation</u>** is applied 3.3 Presentation is checked
4. Print and Transfer presentation	4.1 Printer is selected and printer **<u>settings</u>** are confirmed 4.2 Presentation slides are Printed 4.3 Presentation is transferred using **<u>storage media.</u>** 4.4 Appropriate print format is selected for presentation. 4.5 Presentation is exported with the **<u>expected format</u>**

Range of Variables

Variable	Range (may include but not limited to):

1. Necessary Software's	1.1 Presentation Application Software
	    1.1.1 Microsoft PowerPoint
	    1.1.2 Prezi
	    1.1.3 Google Slide
	1.2 Bangla Typing Software
	    1.2.1 Bijoy
	    1.2.2 Avro

2. Types of presentation	2.1 Business Presentation 2.2 Personal Portfolio 2.3 Educational Material
3. Components of presentation application interface	3.1 Tab 3.2 Ribbon 3.3 Bar
4. Slide size	4.1. Standard 4.2. Wide Screen
5. Slide layout	5.1 Blank 5.2 Title Slide 5.3 Title and content 5.4 Two Content

6. Contents	6.1. Text
	6.2. Table
	6.3. Illustrations
	    6.3.1 Picture
	    6.3.2 Shapes
	    6.3.3 Text Box
	    6.3.4 SmartArt
	    6.3.5 Chart
	6.4. Symbols
	6.5. Media
	    6.5.1 Audio
	    6.5.2 Video

7. File format.	7.1 .pptx 7.2 .pptm 7.3 .ppt 7.4 .pdf
8. Presentation view.	8.1. From beginning 8.2. From Current slide
9. Animation	9.1 Entrance 9.2 Emphasis 9.3 Exit
10. Printer Settings	10.1 Collated 10.2 Print layout 10.3 Handouts 10.4 Page Orientation 10.5 Paper Size 10.6 Margins 10.7 pages per sheet 10.8 Color 10.9 Header & footer

11.	Storage Media	11.1	USB Pen drive
		11.2	Portable Hard drive
		11.3	Optical Disk
12.	Expected format	12.1	Pdf
		12.2	Handouts

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet all requirements of the current version of the Unit of Competency.

1. Critical aspects of competency	Assessment required evidence that the candidate:
	1.1 Identified and interpreted necessary presentation software based on the task.
	1.2 Recognized the type of presentation to be created (e.g., business, personal portfolio, or educational).
	1.3 created presentation files using a blank template or library.
	1.4 Choose slide sizes and layouts based on requirements.
	1.5 Added and arranged content effectively, ensuring accuracy and clarity.
	1.6 Saved the presentation in the specified location and format as instructed.
	1.7 Verified the presentation in the slide show view.
	1.8 Customized slide backgrounds and apply animations appropriately.
	1.9 Checked the completed presentation for coherence, visual appeal, and functionality.
	1.10 Configured printer settings, selected an appropriate printer, and printed slides as needed.
	1.11 Transferred presentations securely using suitable storage media.
	1.12 Exported presentations in the required format (e.g., PDF or handouts).
2. Underpinning knowledge	2.1 Different types of presentation.
	2.2 Save and Save As functionalities
	2.3 Slide printing process
	2.4 Use of Slide transition, animation, and motion path
	2.5 Procedure to Keep a clean workplace and equipment orderly.
	2.6 Different types of presentations (business, personal portfolio, educational materials).
	2.7 Components of the presentation interface (tabs, ribbons, bars).
	2.8 File formats/extensions (.pptx, .pdf, etc.).
	2.9 Slide layouts and sizes (standard, widescreen).
	2.10 Use of multimedia content (text, charts, tables, images, videos, audio).
	2.11 Applying slide transitions, animations, and motion paths.

	2.12 Slide printing processes and printer settings (collated, handouts, orientation). 2.13 Exporting files to formats like PDF. 2.14 Importance of maintaining a clean and organized workplace. 2.15 Safe handling of equipment and storage devices.
3. Underpinning skills	3.1 Creating presentations from scratch or templates. 3.2 Designing slides effectively with content, layout, and multimedia. 3.3 Navigating presentation software (PowerPoint, Prezi, Google Slides). 3.4 Typing in Bangla using software like Bijoy and Avro. 3.5 Printing and transferring presentations using appropriate tools and media (USB, portable hard drive). 3.6 Exporting presentations in different formats (e.g., PDF, handouts). 3.7 Reviewing slide content for accuracy and effectiveness. 3.8 Performing slide show mode for final verification.
4. Required attitudes	4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Ensuring precision in slide design, formatting, and content accuracy. 4.5 Eagerness to learn new skills including various software and handling different presentation types. 4.6 Environmental Concerns. 4.7 Respect for the rights of peers, subordinates, and seniors at the workplace. 4.8 Ensuring the confidentiality and reliability of prepared documents. 4.9 Communicates clearly and effectively with peers, subordinates, and supervisors. 4.10 Maintains a clean and orderly workstation. 4.11 Ensures timeliness and tidiness in daily tasks.
5. Resource implication	The following resources must be provided: 5.1 Workplace (actual or simulated). 5.2 Projector or interactive whiteboard for demonstrations. 5.3 Desktop or laptop computers with sufficient specifications to run Pre-installed software like Microsoft PowerPoint, Google Slides, and Prezi. 5.4 Printer (laser or inkjet) with various printing capabilities (single/both sides, odd/even pages). 5.5 USB pen drives, portable hard drives, and optical disks for file transfer practice. 5.6 Internet access for cloud-based applications like Google Docs and updates for installed software.

	5.7 Adjustable chairs and desks for ergonomic typing practice.
	5.8 Presentation applications like Microsoft PowerPoint, Google Slides, and Prezi (ensure all versions are functional).
	5.9 Bijoy and Avro software for creating presentations in Bangla.
	5.10 Training manuals, Handouts, or guides detailing software use, customization, animations, and file management.
	5.11 Examples/Pre-designed presentation templates for different purposes (business, educational, portfolios
	5.12 Sample Files for Practicing presentations with varying content types (text, tables, charts, multimedia).
	5.13 Quick Reference Cards on shortcuts, file formats, and animation types.
	5.14 Posters and handouts emphasizing safe work practices and ergonomic principles.
6. Methods of assessment	Methods of assessment may include but are not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited center. 7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	**OU-ICT-CO-05-L3-V1: Perform Basic Troubleshooting**
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to perform basic troubleshooting. It specifically includes identifying the problem and fixing operational problems.
Nominal Hours	**20 Hours**
Elements of Competency	Performance Criteria **Bold & Underlined** terms are elaborated in the Range of Variables
1. Identify the problem	1.1 Occupational Safety and Health (OSH) procedures are followed. 1.2 Hardware & Software are checked for non-functionalities 1.3 **Operational Problems** are identified and reported to the authority.
2. Fix the operational problems	2.1 **Peripheral** connections are checked and identified. 2.2 **Software malfunctions** are identified. 2.3 Possible solutions are considered for detected errors. 2.4 A specific solution is selected and applied to fix the error. 2.5 Operational problem(s) is/are fixed within the scope of the job. 2.6 Unsolved issues are reported to the designated person.
Range of Variables	
Variable	Range (may include but not limited to):
1. Operational Problems	Hardware 1.1 Device Power Issue 1.2 Data cable issue 1.3 Device Date & Time Mismatch 1.4 Boot Device fault Software: 1.5 OS Failure 1.6 Application software error Network: 1.7 Network connection
2. Peripherals	2.1. Mouse 2.2. Keyboard 2.3. Printer 2.4. Scanner 2.5. Projector 2.6. Speaker 2.7. Web Cam

3. Software malfunctions	3.1 Application Crashing 3.2 System Freeze 3.3 Data corruption 3.4 Login Failure 3.5 Software update failure 3.6 Compatibility issues 3.7 Slow performance 3.8 Functionality not working

Evidence Guide
The evidence must be authentic, valid, sufficient, reliable, consistent, and recent and meet all requirements of the current version of the Unit of Competency.

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Diagnosed hardware, software, and network issues 1.2 Resolved operational problems related to peripherals like printers, scanners, and other devices. 1.3 Addressed issues such as system crashes, data corruption, or compatibility problems within the scope of their job role.
2. Underpinning knowledge	2.1 common faults related to devices, operating systems, and application software 2.2 Knowledge of systematic approaches to identifying the source of hardware or software malfunctions. 2.3 Printing-related issues such as paper jams, connectivity problems, or print quality issues 2.4 Steps to resolve and troubleshoot printing errors effectively.
3. Underpinning skills	3.1 Connect and disconnect the device and peripheral. 3.2 Ability to identify and suggest essential software for specific tasks or troubleshooting needs.
4. Required attitudes	4.1 Commitment to occupational safety and health. 4.2 Careful and methodical approach to diagnosing and resolving issues 4.3 Sincere and honest to duties. 4.4 Eagerness to learn new skills. 4.5 Environmental Concerns. 4.6 Eager to follow troubleshooting steps and OSH procedures to avoid errors. 4.7 Stay focused while diagnosing complex issues and resolving faults. 4.8 Anticipate and prevent problems by performing routine checks on devices and software 4.9 Taking initiative to identify and fix problems within the scope of authority before escalation 4.10 Willingness to escalate unresolved issues to the designated person and work collaboratively to find solutions 4.11 Respect for the rights of peers, subordinates, and seniors at the workplace.

	4.12 Ensuring the confidentiality and reliability.
	4.13 Communicates clearly and effectively with peers, subordinates, and supervisors.
	4.14 Maintains a clean and orderly workstation.
	4.15 Ensures timeliness and tidiness in daily tasks.
5. Resource implications	The following resources must be provided:
	5.1 Workplace (actual or simulated).
	5.2 Projector or interactive whiteboard for demonstrations.
	5.3 Desktop or laptop computers with sufficient specifications to run Pre-installed software.
	5.4 Printer (laser or inkjet) with various printing capabilities (single/both sides, odd/even pages).
	5.5 Mouse, keyboard, printer, scanner, projector, webcam, speakers, and other commonly used devices.
	5.6 USB pen drives, portable hard drives, and optical disks for file transfer practice.
	5.7 Modems, routers, and network cables for demonstrating and troubleshooting network connections.
	5.8 Internet access for cloud-based applications like Google Docs and updates for installed software.
	5.9 Adjustable chairs and desks for ergonomic typing practice.
	5.10 Training manuals covering the troubleshooting manuals and OSH guidelines for hardware, software, and network problem resolution.
	5.11 Reference Charts on Common error codes, hardware connections, peripheral troubleshooting steps, and software error solutions.
	5.12 Predefined troubleshooting scenarios for hands-on practice include OS failure, login errors, and printer jams.
	5.13 Quick reference guides and checklists for troubleshooting procedures.
6. Methods of assessment	Methods of assessment may include but are not limited to:
	6.1. Written test.
	6.2. Demonstration.
	6.3. Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited center.
	7.2 Assessment should be done by NSDA certified/ nominated assessor

Accreditation Requirements

Training Providers must be accredited by the National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Development of Competency Standard

The Competency Standards for National Skills Certificate in Computer Operation, Level- 2 is developed by NSDA on 22-23 October 2024

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Validation of Competency Standard

The Competency Standards for National Skills Certificate in Computer Operation, Level- 2 is validated by NSDA on 18 November 2024

List of participants

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