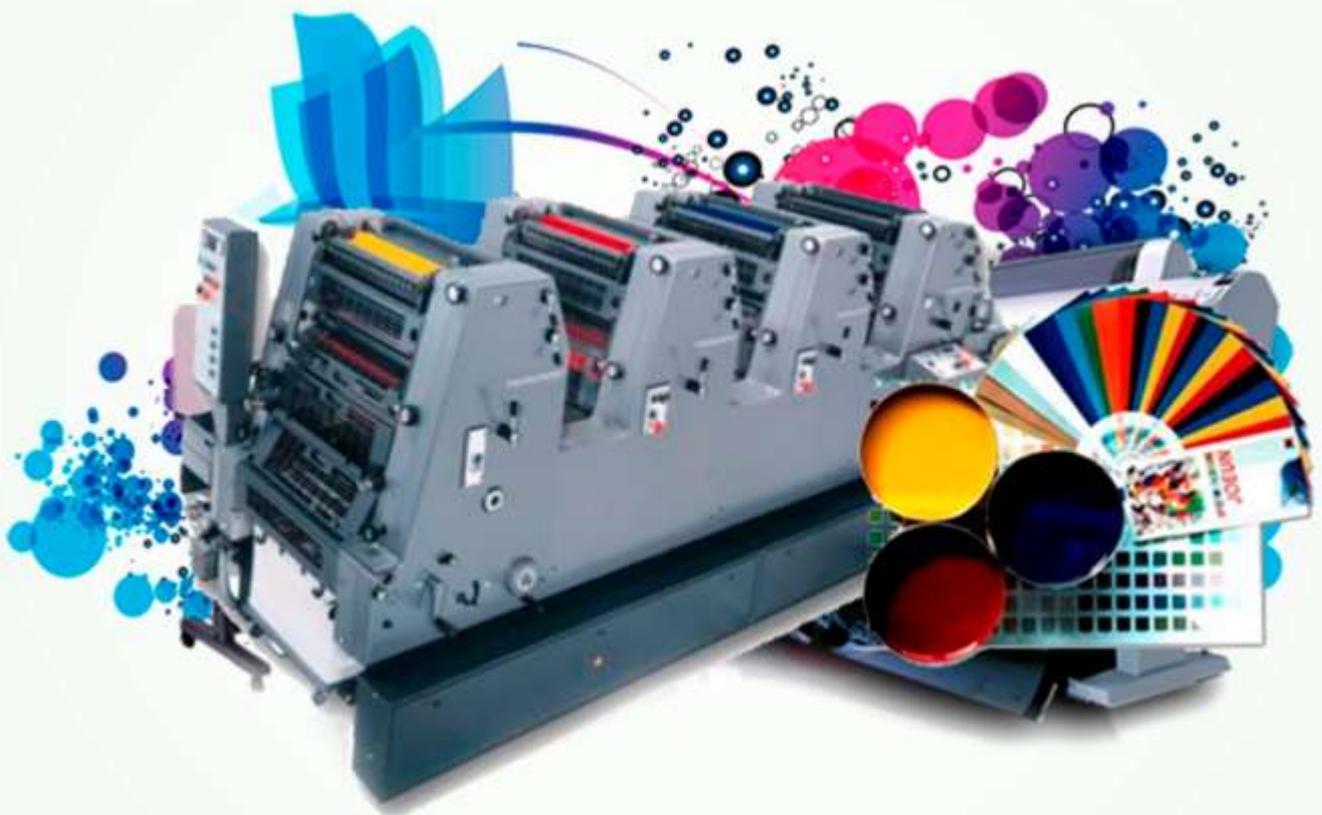




National Vocational Certificate Level 2,  
in (Printing & Packaging Technology)  
**Assistant Offset Printing Machine Operator**

National Vocational Certificate Level 3,  
in (Printing & Packaging Technology)  
**Offset Printing Machine Operator**



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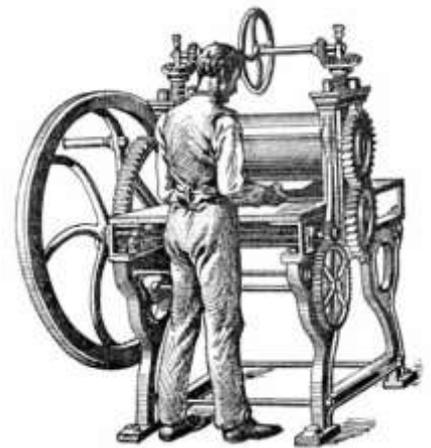
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## INTRODUCTION

The National Competency Standards are written specifications of skill and knowledge competencies required in a particular vocational occupation. The competency standards are developed by a group of practitioners supported by the TVET Reform Support Program in collaboration with National Vocational & Technical Training Commission (NAVTTTC)

Pakistan has great potential for growth of printing, graphic arts industry in offset printing, the inked image or text is moved from a plate to a rubber blanket and from there to the paper or other printing surface. In lithography, oil and water are used to print the image. Printing industry in Pakistan. Growing demand of expert worker in printing industry was the intention for development of these Competency Standards the Experts of Printing industries from different geographical locations across Pakistan have participated in the development process of this competency standard of OFFSET PRINTING MACHINE OPERATOR to ensure input and ownership of all the stakeholders. NAVTTTC approves this competency standard on the recommendation of Qualification Development Committee (QDC) for the Services sector.

The National Competency Standards shall be used as a referral document for the development of curricula, TLM & assessment evidence guides to be used in Technical and Vocational Education and Training.



## TITLE OF THE QUALIFICATION

The detail of the competency standards included in these qualifications are given below:

- I. National Vocational Certificate level 2 in (Printing and Packaging Technology) “Assistant Offset Printing Machine Operator”;
  - A. Perform pre-run maintenance
  - B. Interpret Printing instructions on Docket
  - C. Perform Post production activities
  - D. Adhere to Safety Standards and Regulations
  - E. Develop professionalism
  - F. Manage press room waste
  
- II. National Vocational Certificate level 3 in (Printing and Packaging Technology) “Offset Printing Machine Operator”
  - A. Make ready print
  - B. Perform Color management
  - C. Perform Print run
  - D. Maintain graphic chemicals in Machine
  - E. Complete Documentation Requirements
  - F. Perform Communication

## PURPOSE OF THE QUALIFICATION

The purpose of the training is to provide qualified offset printing machine operators to improve the operation of Printing industry. This will improve the quality of offset printing machine operations at the industry and local market. The availability of such quality of operator in the local and international markets will ultimately bring economic benefits to the producers and processors.

The core purpose of this qualification is to produce employable offset printing machine operator, who could operate single and multicolor printing machines in printing press. In addition, this qualification will prepare unemployable youth to employee in printing industry. To prepare and train learner through skill training and enabling them to earn their living either through employment in printing industry.

## MAIN OBJECTIVES OF QUALIFICATION

- The Offset Printing Machine Operator qualification consists of learning Competency Standards required for the conduct of assessment of offset machine from Pre-print till post print operations, the main objectives of the qualification are to perform following competencies:
  - Perform Pre-Run Maintenance
  - Interpret Printing instructions on Docket
  - Make ready print
  - Perform Color management

- Perform Print run
- Maintain graphic chemicals in Machine
- Perform Post production activities
- Adhere to Safety Standards and Regulations
- Develop professionalism
- Complete Documentation Requirements
- Perform Communication
- Manage waste

## DATE OF VALIDATION

The level 2 and 3 of national vocational qualification on Printing and packaging – Assistant Offset Printing Machine Operator & Offset Printing Machine Operator have been validated by the Qualifications Development Committee (QDC) members on 8<sup>th</sup> and 9<sup>th</sup> of May 2018 and will remain in currency until December 2021.

## CODE OF THE QUALIFICATION

The International Standard Classification of Education (ISCED) is a framework for assembling, compiling and analyzing cross-nationally comparable statistics on education and training. ISCED codes for these qualifications are assigned as follows:

### ISCED Classification Printing and Packaging Technology – Offset Printing Machine Operator

Code	Description
<b>0211OPO1</b>	National Vocational Certificate level 2 in (Printing and Packaging Technology) “Assistant Offset Printing Machine Operator”;
<b>0211OPO2</b>	National Vocational Certificate level 3 in (Printing and Packaging Technology) “Offset Printing Machine Operator”;

## MEMBERS OF QUALIFICATION DEVELOPMENT COMMITTEE

The following members participated in the qualifications development and validation of Assistant offset machine operator:

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## ENTRY REQUIREMENTS

Title	Entry requirements
<b>National Vocational Certificate level 2 in (Printing and Packaging Technology) “Assistant Offset Printing Machine Operator”;</b>	<p>Entry for assessment for this qualification is open. However, entry into formal training institute for this qualification is the person must have Secondary School Certificate /Matric or equivalent however</p> <p>A person who has at least two years working experience at printing press after eight years of schooling is eligible to be a candidate in this qualification.</p>
<b>National Vocational Certificate level 3 in (Printing and Packaging Technology) “Offset Printing Machine Operator”;</b>	<p>Entry for assessment for this qualification is open. However, entry into formal training institute for this qualification is for person having National Vocational Certificate level 2, in (Printing and Packaging Technology) “Assistant Offset Printing Machine Operator”. In addition to this the person have Matriculate / SSC with fundamental knowledge of Printing and Packaging. OR A person who has at least five years working experience at printing press after eight years of schooling is eligible to be a candidate this qualification.</p>

## REGULATIONS FOR THE QUALIFICATION

No specific regulations identified by QDC for the qualification.

## SUMMARY OF COMPETENCY STANDARDS

Code	Competency Standards	Level	Credits	Category
<b>0211 OPO1A</b>	Perform pre-run maintenance	2	3	Functional
<b>0211 OPO1B</b>	Interpret Printing instructions on Docket	2	4	Technical
<b>0211 OPO1C</b>	Perform Post production activities	2	10	Functional

<b>0211 OPO1D</b>	Adhere to Safety Standards and Regulations	2	8	Generic
<b>0211 OPO1E</b>	Develop professionalism	2	5	Generic
<b>0211 OPO1F</b>	Manage press room waste	2	5	Functional
<b>0211 OPO2A</b>	Make ready print	3	10	Technical
<b>0211 OPO2B</b>	Perform Color management	3	10	Technical
<b>0211 OPO2C</b>	Perform Print run	3	3	Technical
<b>0211 OPO2D</b>	Maintain graphic chemicals in Machine	3	10	Technical
<b>0211 OPO2E</b>	Complete Documentation Requirements	3	5	Functional
<b>0211 OPO2F</b>	Perform Communication	3	12	Generic
<b>041600453</b>	Occupational health and safety	2	3	Technical
<b>041600455</b>	Communicate in the workplace to support customers and team	3	6	Technical
<b>041600459</b>	Work effectively in a customer service - sales environment	3	7	Technical
<b>041600460</b>	Develop professionalism	3	3	Technical
<b>041600461</b>	Comply with health and safety regulations	3	2	Technical

Level 2 & Level 3 will take around 6-month time each which includes three months institutional and three months for Work Place Based Training (as OJT).

## Packaging of NVQF

The packaging of competencies is given as follows:

Title	Packages of Competency Standards
<b>National Vocational Certificate level 2 in (Printing and Packaging Technology) “Assistant Offset Printing Machine Operator”;</b>	0211 OPO1A + 0211 OPO1B + 0211 OPO1C + 0211 OPO1D + 0211 OPO1E + 0211 OPO1F
<b>National Vocational Certificate level 3 in (Printing and Packaging Technology) “Offset Printing Machine Operator”;</b>	0211 OPO2A + 0211 OPO2B + 0211 OPO2C + 0211 OPO2D + 0211 OPO2E + 0211 OPO2F

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## Competency Standard A- Perform Pre-Run Maintenance

### Overview

This Competency Standard describes the performance outcomes of skills and knowledge required for an assistant offset machine operator to perform pre-run maintenance, in accordance with approved procedures. The learner will be expected to perform cleaning, maintain oil level in printing machine and perform inching process safely as per standards operating procedures in a Printing press. The underpinning knowledge for this Competency Standard is about the main parts of offset printing machine, cleaning method of the machine, necessity of keeping oil level in the machine maintained, and performing inching procedure before printing.

Competency Units	Performance Criteria
<b>A-1</b>  <b>Perform cleaning in press room</b>	The learner will be able to:  P1- perform daily cleaning surrounding printing machine as per press room SOPs.  P2- perform cleaning of the machine as per OEM manual.  P3- perform cleaning of associated tools as per press room SOPs.  P4- perform periodic cleaning as per duty chart.
<b>A-2</b>  <b>Maintain oil level</b>	The learner will be able to:  P1. compare quality of oil in machine with quality recommended in machine manual.  P2. maintain oil level as per machine specifications.
<b>A-3</b>  <b>Inch printing machine</b>	The learner will be able to:  P1- perform inching procedure on printing machine as per SOPs.  P2- verify inching through test print.

**A-4**

The learner will be able to:

**Manage humidity in press room**

P1- verify humidity of press room as per press room SOPs.

P2-apply humidity management techniques in press room.

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## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1- state history and types of printing
- K2- enlist main parts of offset printing machine.
- K3- describe the importance of tidiness in press room.
- K4- describe method of cleaning in press.
- K5- list work place cleaning equipment.
- K6- list work place cleaning consumable
- K7- define viscosity.
- K8- give disadvantage of using low quality oil in machine.
- K9- determine capacity of oil tank in printing machine.
- K10- define oil grading system in printing machine.
- K11- list reasons to maintain oil level in machines.
- K12- define inching.
- K13 -describe the importance of inching.
- K14- list effects of avoiding inching.
- K15- describe inching procedure on offset printing machine.
- K16- define humidity.
- K17- describe importance of manage humidity in press room environment.
- K18- enlist method of humidity management in press room.

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- A. verify inching through test print.
- B. perform cleaning of the machine and associated tools as per press room SOPs & OEM manual

- A. Important points
- B. maintain oil level as per machine specifications
- C. apply humidity management techniques in press room

## Competency Standard B- Interpret printing instructions on docket/job card

### Overview

This Competency Standard describes the performance outcomes skills and knowledge required for an assistant offset machine operator to Interpret printing instructions from detailed job order package or docket in accordance with approved procedures. The learner will be expected to determine job order details, verify plates concerned with the printing job, test and verify the quality of material supplied for the job check and verify paper sizing and cutting and art work of the job to be printed on machine. Paper quality, material quality knowledge, drawing skills, mathematical skills chemistry is underpinning knowledge and skills for the Competency Standard.

Competency Units	Performance Criteria
<b>B-1</b>  <b>Determine job order details</b>	The learner will be able to:  P1- determine job title from docket/job card.  P2- verify availability of reference specimen in docket/job card.  P3- determine colour sequencing of job as per docket/job card requisition.  P4- determine coating applications on from docket/job card.
<b>B-2</b>  <b>Verify plates as per job requirement</b>	The learner will be able to:  P1- verify conditions of plates for any physical damage.  P2- determine dot percentage on printing plates.

P3-verify colour plates as per given reference specimen.

P4- determine plate size for designated machine from docket/job card.

P5- determine traceability marks on printing plate as per printing requirement.

P6- verify plate characteristics as per dot strip

**B-4**

**Verify substrate sizing**

The learner will be able to:

P1- verify size of substrate as per docket/job card.

P2- verify trimming of substrate for alternate size of job as per requirement.

**B-5 Verify artwork**

The learner will be able to:

P1- verify artwork as per specimen.

P2- verify artwork from plates.

## KNOWLEDGE AND UNDERSTANDING

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

K1- Importance of docket/job card and its interpretation

K3- enlist information available on docket/job card.

K4- define shade card.

K5- Importance of colour sequencing.

K6- define applications of coatings.

K7- list types of coatings used in offset printing.

K8- define traceability marks.

K9- define printing plate.

K10- list types of printing plates.

K11- define dot percentage.

K12- state precautions to be taken in printing plates handling.

K13- describe substrate for offset printing.

K14- define GSM values.

K15- describe effects of variation in GSM values.

K16- define grain of substrate.

K17- state determination method of substrate grain.

- K18- define L\*A\*B\* values.
- K19- describe method of L\*A\*B\* values management/control.
- K20- state importance of maintaining viscosity of coatings.
- K21- state method of checking substrate sizes.
- K22- describe effect of size variation on substrate.
- K23- state substrate trimming procedure.
- K24- define artwork in printing industry.

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- A. determine colour sequencing of job as per-docket / job card requisition.
- B. determine plate size for designated machine from docket/job card.
- C. determine L\*A\*B\* values of substrate as per docket/job card requisition.
- D. verify trimming of substrate for alternate size of job as per requirement.

## **Important points**

- A. verify conditions of plates for any physical damage.
- B. determine grain of substrate as per docket/job card requisition.
- C. determine Gram per Square Meter(GSM) value of substrate as per docket/job card requisition.
- D. maintain viscosity for coating used as per Technical Data Sheet (TDS) of coating.
- E. verify artwork from plates.

## Competency Standard C: Make ready print

### Overview

This Competency Standard describes the performance outcomes skills and knowledge required for an assistant offset machine operator to perform pre-printing operations termed as make ready print. A person will be expected to prepare paper stock to be fed in machine for printing, mounting printing plates on machine, adjust various machine parts & getting a sample print before starting production on machine. This unit cover the knowledge regarding paper specifications & adjustments, printing machine parts and operational knowledge of offset printing machine.

Competency Units	Performance Criteria
<b>C-1-Perform machine feed</b>	The learner will be able to:  P1- prepare substrate according to docket/job order.  P2- feed substrate into feeder section in order.
<b>C-2</b>	The learner will be able to:  <b>Mount printing plates on plate cylinder</b>  P1- punch plate from head lay according to marking.  P2- bend plate from end lay side by measuring it on the machine.  P3- mount plate on plate cylinder as per procedure.
<b>C-3</b>	The learner will be able to:  <b>Adjust machine side lay</b>  P1- adjust side lay according to job requirements.  P2- adjust side lay for errorless registration.  P3- adjust edge of the papers according to side lay mark.
<b>C-4</b>	The learner will be able to:

**Adjust machine head-lay**

P1- adjust head lay according to substrate size.

P2- adjust head-lay as per job requirement.

**C-5**

**Adjust machine feeder**

The learner will be able to:

P1- adjust measure bar.

P2- adjust air vacuum pressure of feeder.

P3- set vacuum pressure setting according to substrate type.

P4 set feeder according to substrate type.

**C-6**

**Adjust paper delivery**

The learner will be able to:

P1- adjust delivery by the job size.

P2- adjust air vacuum on delivery section.

P3- adjust side jogger as per job size.

P4- perform delivery fan adjustments as per substrate GSM.

**C-7**

**Adjust cylinders impression**

The learner will be able to:

P1-verify plate cylinder packing according to SOPs.

P2-verify blanket cylinder packing according to SOPs.

P3-verify impression cylinder according to substrate.

**C-8**

**Perform paper run**

The learner will be able to:

P1-verify smooth travelling of substrate from feeder till delivery section.

P2- verify registration of job as per SOPs.

## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1-Identify printing side as given specimen
- K2-describe the steps of loading paper on the feeder section.
- K3- describe purpose of plate punching machine
- K4- describe position of plate's end lay to ensure proper bending.
- K5- describe steps of plate mounting procedure.
- K6- give purpose of side lay in printing machine.
- K7- describe the steps involve for the side lay adjustment.
- K8- describe the steps involve for colour registration.
- K9- describe the position of side lay for perfect registration.
- K10- give purpose of head lay in printing machine.
- K11- give importance of head lay adjustment.
- K12- describe the procedure of head lay adjustment.
- K13- describe effects of wrong feeder adjustment.
- K14- describe feeder adjustment procedure.
- K15- describe handling and care of printed and unprinted paper.
- K16-state delivery system of printing machine.
- K17-describe the step of setting delivery section.
- K18- describe the vacuum setting procedure.
- K19-state function of De-curler
- K20- define function of delivery fan
- K21- describe type of packing sheets.
- K22- describe blanket packing according to SOP
- K23- define printing on substrate with correct setting of impression cylinder.
- K24- define registration verification.
- K25- describe importance of registration.

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- prepare substrate according to docket/job order.
- punch plate from head lay according to marking.
- bend plate from end lay side by measuring it on the machine.
- mount plate on plate cylinder as per procedure.
- set vacuum pressure setting according to substrate type.
- verify smooth travelling of substrate from feeder till delivery section.

## **Important points**

- adjustment of paper edges according to side lay mark.
- Adjustment of head lay as per job requirement.
- Setting of vacuum pressure according to substrate type.
- Adjustment of side jogger as per job size
- verify plate cylinder packing according to SOPs.
- verify blanket cylinder packing according to SOPs.
- verify registration of job as per SOPs.

## Competency Standard D: Perform color management

### Overview

This Competency Standard describes the performance outcomes skills and knowledge required for an assistant offset machine operator to perform color management at printing press by controlling LAB values& their matching procedure, controlling ink density in printing machine and controlling drying parameter of printed jobs. Colour processing, LAB Value maintenance during printing process inks management, process of ink filling CPC Processing are underpinning knowledge for the Competency Standard

Competency Units	Performance Criteria
<b>D-1</b>  <b>Control L*A*B* values</b>	The learner will be able to:  P1- match colour L*A*B* values with given reference as per docket/job card.  P2- maintain Delta E( $\Delta E$ ) of colours with in the specified range during production.
<b>D-2</b>  <b>Control ink density</b>	The learner will be able to:  P1- fill inks duck with quantity as per SOPs.  P2- maintain ink film layer manually on sheets with given reference on manual machines.  P3- maintain ink film layer by Colour Panel Controller(CPC) on sheets with given reference on advanced machines.
<b>D-3</b>  <b>Control drying parameters</b>	The learner will be able to:  P1- control wet ink on sheets through proper drying chemicals.  P2- control wet ink on sheets through proper drying powders.  P3- unload low stacks from the machine as per

## KNOWLEDGE AND UNDERSTANDING

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- define color management.
- K2- enlist process colours.
- K3- describe  $\Delta E$ .
- K4- define L\*A\*B\* Values.
- K5- state procedure of LAB matching.
- K6- State precautionary measures adopted during ink controlling in printing machine.
- K7- define ink density.
- K8- define function of ink duct.
- K9- state procedure of ink layer maintenance on sheet for manual printing machine.
- K10- define Numeric standards of ink density.
- K11- describe film layer.
- K12- state CPC procedure of ink layer maintenance on sheet
- K13- define various method of ink density control.
- K14- define drying agents used in printing press
- K15- describe application of drying agents.

### Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- match colour L\*A\*B\* values with given reference as per docket/job card.
- maintain Delta E( $\Delta E$ ) of colours within the specified range during production.
- control wet ink on sheets through proper drying chemicals / powders.

### Important points

- fill ink duct with quantity as per SOPs.
- maintain ink film layer by Colour Panel Controller(CPC) on sheets with given reference on advanced machines.

## Competency Standard E: Perform print run

### Overview

These competency standards will ensure that the learner is competent to perform print run by following the instructions by maintaining balance between ink and water, eliminating dot gain, maintaining registration and controlling  $\Delta E_{on}$  offset printing machine.

Competency Units	Performance Criteria
<b>E-1</b>  <b>Maintain balance between ink and water.</b>	The learner will be able to:  P1- verify print quality on sheet with in given intervals.  P2- monitor ink duct with in recommended intervals to keep the print quality sustain.  P3- maintain water level as per machine standard.  P4- verify water temperature of chiller as per standard.  P5- maintain pH value of water as per SOPs.  P6- maintain conductivity value of water as per SOPs.  P7- maintain IPA percentage of water as per SOPs.  P8- verify dampening rollers for normal operations.
<b>E-2</b>  <b>Manage dot gain</b>	The learner will be able to:  P1- perform blanket adjustment as per SOPs.  P2- control water volume during print run for normal printing.
<b>E-3</b>  <b>Maintain registration</b>	The learner will be able to:  P1- maintain registration of printed sheets with in

	recommended intervals.
	P2- maintain side lay marks with in recommended intervals
	P3- maintain head lay marks with in recommended intervals.

**E-4** The learner will be able to:

**Control Delta E values / variation** P1-record L\*A\*B\* values in Log Book.

P2- match L\*A\*B\* values with in recommended intervals as per specimen.

P3- maintain L\*A\*B\* values as per specimen.

P-4- Maintain ink density as per job requirements.

## KNOWLEDGE AND UNDERSTANDING

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

K1- enlist the checking parameters.

K2- define pH.

K3- define conductivity.

K4- define fountain solution and its usage.

K5- define IPA and its usage.

K6- explain dampening setting.

K7- define ink density and its importance

K8- define dot gain.

K9- define effects of dot gain on printing.

K10- define factors responsible for dot gain.

K11- define registration.

K12- state purpose of head lay and side lay marks.

K13- state necessity of magnifying glass in registration process

K14- describe  $\Delta E$ .

K15- define L\*A\*B\* values.

K16- state importance of maintaining LAB values during production

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- control water volume during print run for normal printing.
- maintain side-lay and head-lay marks within recommended intervals .

## **Important points**

- maintain water level as per machine standard.
- maintain pH value of water as per SOPs.
- verify dampening rollers for normal operations.
- maintain L\*A\*B\* values as per specimen.

## Competency Standard: F- Maintain graphic chemicals in machine

### Overview

This Competency Standard describes the performance outcomes, skills and knowledge required for an assistant offset machine operator to maintain graphic chemicals by maintaining pH values, maintaining conductivity of chemical in the machine and maintaining temperature of chiller to obtain desired printing results. Underpinning knowledge, required for the Competency Standard is about characteristics of chemicals used in printing machine, e.g. pH value and conductivity. it is also essential for offset printing machine operator to understand how to maintain temperature of chiller of machine.

Competency Units	Performance Criteria
<b>F-1</b>  <b>Maintain pH value</b>	The learner will be able to:  P1- keep pH value with in approved range.  P2- put in pH value in log Book.
<b>F-2</b>  <b>Maintain conductivity</b>	The learner will be able to:  P1- put in raw water conductivity value in log book.  P2- control raw water conductivity as per SOP.  P3- put in water conductivity value in log book after control.
<b>F-3</b>  <b>Maintain temperature</b> <b>chiller</b>	The learner will be able to:  P1- put in water temperature value in log book.  P2- control water temperature as per SOP.
<b>F-4</b>  <b>Maintain water level in chiller tank</b>	The learner will be able to:  P1- mix water with recommended chemical composition as per SOPs.

P2- maintain water quantity in chiller as per SOP.

<b>F-5</b>	The learner will be able to:
<b>Maintain IPA in water</b>	P1- put in IPA value after mixing in water in log book. P2- control IPA value in water as per SOP.
<b>F-6</b>	The learner will be able to:
<b>Maintain fountain solution in water</b>	P1- Maintain fountain solution in water as per SOPs. P2- record fountain solution percentage in log book

## KNOWLEDGE AND UNDERSTANDING

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- define pH value.
- K2- give the importance of maintaining pH value during printing machine operations.
- K3- list method of pH value measurement
- K4- define conductivity in printing machine.
- K5- define conductivity standard.
- K6- define function of water temperature.
- K7- define water temperature standard.
- K8- list cause and effect of using raw water in machine instead of recommended mixed water.
- K9- describe water fountain system in offset printing machine.
- K10- describe importance of chilled water in fountain system
- K11- define function of IPA.
- K12- define behavior of IPA after mixing in water.
- K13- calculate ratio of fountain solution in water.
- K14- describe the procedure of water chemical controlling in printing machine.

### Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- mix water with recommended chemical composition as per SOPs.

- Put and control IPA value in water as per SOP.
- Maintain fountain solution in water as per SOPs.

### **Important points**

- put in water conductivity value in log book after control.
- control water temperature as per SOP.
- Maintain fountain solution in water as per SOPs.

## Competency Standard G: Perform post production activates

Competency Units	Performance Criteria
<b>G-1</b>  <b>Perform ink rollers cleaning</b>	The learner will be able to:  P1- remove ink residual from machine rollers as per SOP.  P2- wash machine rollers as per SOPs.
<b>G-2</b>  <b>Wash printing plates</b>	The learner will be able to:  P1- remove printing plates from machine as per SOP  P2- clean all printing plate with proper plate cleaner.  P3- perform printing plate delicate cleaning as per SOPs.
<b>G-3</b>  <b>Wash printing Blanket</b>	The learner will be able to:  P1- perform blanket wash as per SOP.  Verify printing blankets for any damage as per SOP
<b>G-4</b>  <b>Clean impression cylinder</b>	The learner will be able to:  P1-Verify impression cylinder for residual ink.  P2- perform impression cylinder wash as per SOP
<b>G-5</b>  <b>Wash dampening rollers</b>	The learner will be able to:  P1- perform dampening roller wash as per SOPs.  P2- replace damping tube from dampening roller as per SOP
<b>G-6</b>	The learner will be able to:

**Perform ink knives cleaning** P1- perform cleaning with proper knives cleaner.

P2- replace knives rubber as per SOPs.

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## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- define the importance of roller cleaning.
- K2- state method of optimizing life span of machine rollers
- K3- define methods of riskless cleaning
- K4- define Important of plate cleaning process.
- K5- state application of CTP plate chemicals.
- K6- state method of washing ink from conventional plates.
- K7- define purpose of blanket in printing machine.
- K8- describe the importance of blanket wash.
- K9- state procedure of blanket washing.
- K10- define the important of cylinder cleaning.
- K11- state procedure of impression cylinder cleaning.
- K12- State purpose of dampening rollers in printing machine.
- K13- give purpose of dampening tube.
- K14- state procedure of dampening roller wash.
- K15- state procedure of dampening tube change.
- K16- describe the important of ink knife cleaning.
- K17-define the life of knives' rubber.

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- remove ink residual from machine rollers as per SOP.
- perform blanket wash as per SOP.
- perform impression cylinder wash as per SOP
- perform dampening roller wash as per SOPs.

## **Important points**

- clean all printing plate with proper plate cleaner.
- perform cleaning with proper knives cleaner.

## Competency Standard H: Adhere to safety standards and regulations

### Overview

This standard identifies the competencies required to apply occupational health and safety procedures at printing press by an offset machine operator in accordance with the organization's approved guidelines and procedures. learner will be expected to identify hazards in workplace, comply with health and safety precautions, use of personal protective equipment and practicing safe work habits at workplace at all times. The underpinning knowledge regarding occupational health and safety procedures will be sufficient to provide the basis for printing work.

Competency Units	Performance Criteria
<b>H-1</b>  <b>Identify hazards in printing environment in press</b>	The learner will be able to:  P1-interpret work processes and procedures to identify risk of hazards at printing press.  P2- recognize printing processes, tools, equipment and consumable materials that have the potential to cause harm.  P3- identify potential hazards to minimize accident risk.  P4- take appropriate action to minimize the risk.
<b>H-2</b>  <b>Comply with Occupational Health and Safety (OHS)precautions</b>	The learner will be able to:  P1-complying with health and safety precautions &relevant guidelines.  P2- identify OHS hazards in printing press to prevent from potential for accidents  P3-deal with problems which are within assistant printing machine operator's control.  P4- report safety issues which are out of assistant machine operator's control  P5- adopt dress code as per printing press SOP.

<p><b>H-3</b></p> <p><b>Use Personal Protective Equipment(PPE)</b></p>	<p>The learner will be able to:</p> <p>P1-select personal protective equipment in terms of type and quantity according to work orders.</p> <p>P2- verify personal protective equipment to ensure optimum protection in compliance with press room procedures.</p> <p>P3- ensure personal protective equipment hygiene in compliance with press room procedures.</p>
<p><b>H-4</b></p> <p><b>Practice safe work habits to ensure safety in the printing &amp; publishing environment</b></p>	<p>The learner will be able to:</p> <p>P1- apply dress code in accordance with press room procedures.</p> <p>P2- follow rules to ensure personal safety as well as safety of others as per press room procedures.</p> <p>P3- demonstrate housekeeping in the workplace by cleaning up spills or leaks.</p> <p>P4- keep work area clear of obstructions as per safety policies</p> <p>P5- ensure tools or equipment in place prescribed as per company procedures.</p>
<p><b>H-5</b></p> <p><b>Demonstrate firefighting skills</b></p>	<p>The learner will be able to:</p> <p>P1- make decision in the process of fighting a fire as per SOPs.</p> <p>P2- stop fire by applying firefighting policies.</p> <p>P3- apply safety precautions when fighting a fire.</p> <p>P4- apply the procedures after a fire has been put out as per SOPs.</p>

## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- state health and safety precautions of the printing company.
- K2- list techniques and methods to control risks of identified hazards in the workplace.
- K3- define procedure of dealing with hazards to reduce chances or avoid accident or injury.
- K4- state safety reporting procedures
- K1- state organizational health and safety procedures.
- K2-list health and safety risks that can arise as a result of accidents.
- K3- list types of hazards that are most likely to cause harm to health and safety.
- K1- give importance of using Personal Protective Equipment (PPE)
- K2. list Types of PPEs required in printing press.
- K1- explain importance of safety at work and its implications.
- K2- state work safety procedures and guidelines.
- K3- list specific company procedures regarding workplace safety.
- K4- recommended procedure for cleaning and storing of tools and equipment.
- K1- Identify causes of Fire
- K2- list types of fire
- K2- list firefighting equipment
- K3- define firefighting method

### **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- adopt dress code as per printing press SOP.
- Follow personal protective equipment in compliance with press room procedures.

### **Important points**

- complying with health and safety precautions & relevant guidelines.
- deal with problems which are within assistant printing machine operator's control.
- keep work area clear of obstructions as per safety policies.

## Competency Standard I: Develop professionalism

### Overview

This Competency Standard identifies the competencies required to develop professionalism in an individual in accordance with requirement of profession. A competent individual will be expected to participate in training institute level trainings, On Job Training (OJT), perform communication with others, upgrade professional skills and work in a team. This underpinning knowledge regarding development of professionalism will be sufficient to provide the basis for quality working.

Competency Units	Performance Criteria
<b>I-1</b>  <b>Participate in in-house training</b>	The learner will be able to:  P1- identify latest training needs according to recent printing industry demands.  P2- get enrolled in advance press training course.  P3- follow training institutes policies for professional development.  P4- perform training task mentioned in TLM.
<b>I-2</b>  <b>Participate in outdoor training</b>	The learner will be able to:  P1- promote Kaizen in printing industry.  P2- implement 5S's at work place.  P3- maintain schedule chart according to organizational policies.  P4- provide logistic support for press room machinery during maintenance.
<b>I-3</b>  <b>Attend trade shows workshop, seminars</b>	The learner will be able to:  P1- adopt upcoming market trends in printing trade by attending workshop and seminar.  P2- participate in skill test for professional development

	<p>with concentration.</p> <p>P3- participate in skill up-gradation courses with devotion.</p> <p>P4- participate in professional seminars with concentration to acquire first hand industrial knowledge.</p> <p>P5- participate in industrial visits on schedule.</p> <p>P6- consult senior experts to get advice.</p> <p>P7- watch videos/documentaries related with printing and packaging industry.</p> <p>P8- perform internet browsing related to printing industry.</p>
<p><b>I-4</b></p> <p><b>Utilize internet</b></p>	<p>The learner will be able to:</p> <p>P1- ensure format or structure of the correspondence is according to company's practice.</p> <p>P2- browse website as per desire.</p> <p>P3- download related software as per desire.</p> <p>P4- Perform required communication via internet with in specified time limits.</p>
<p><b>I-5</b></p> <p><b>Prioritize job schedule</b></p>	<p>The learner will be able to:</p> <p>P-1 interpret production plan as per supervisor's instruction.</p> <p>P-2 create daily schedule according to priority of production plan.</p> <p>P-3 comprehend material priorities for hindrance less production,</p> <p>P-4 develop list of required tools for hindrance less production,</p> <p>P-5 calculate time required for production</p>

P-6 determine sequence of activities,

P-7 report delays to superior in prescribed manners.

## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- keep in touch with press training providers
- K2- apply press room mathematical skills during training.
- K3- apply technical English skills during training.
- K4- describe the importance of being a good team player.
- K5- identify TLM/curriculum.
- K6- describe importance of Industrial Kaizen.
- K7- identify press room Key Performance Indicators(KPIs).
- K8- state importance and methods of time management.
- K9- describe housekeeping through check
- K10- describe the benefits of latest machining techniques and developments,
- K11- identify the need of skill sets by getting involved in seminars,
- P12- read books/magazines related with mechanical manufacturing trade.
- K13- describe procedure of creating E-mail account
- K14- describe browsing techniques to find appropriate web site
- K15- describe procedure of sending E-mail
- K16- identify internet browsing/search engine,
- K17- describe short keys for MS office
- K18- define production plan
- K19- give advantages of preparation of production plan

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Maintain 5S's at work place.
- provide logistic support for press room machinery during maintenance.
- interpret production plan as per supervisor's instruction.
- create daily schedule according to priority of production plan.
- report delays to superior in prescribed manners.

## **Important points**

- maintain schedule chart according to organizational policies.
- create daily schedule according to priority of production plan.
- determine sequence of activities.

## Competency Standard J- Complete documentation requirements

### Overview

This Competency Standard identifies the competencies required to develop complete documentation. The individual will be expected to document worktime, information and maintain printing machine log manually and on computer. This underpinning knowledge regarding computer operation, record keeping inventory system of printing press will be sufficient to provide the basis for quality documentation.

Competency Units	Performance Criteria
<b>J-1</b>  <b>Document work time</b>	The learner will be able to:  P1- record activity span of workday on operation/worksheet  P2- record irregular work hours on operation/worksheet  P3- maintain over time record as per printing press SOPs.
<b>J-2</b>  <b>Document information</b>	The learner will be able to:  P1- verify consumables availability through inventory and maintain check sheet.  P2- verify availability of desired tools through stock inventory.  P3- report stocks consumption according to job.  P4- request for material on prescribed indent format.  P5- carryout consumed items disposal record in consumable register.  P6- record information about customer's feedback as per SOPs.

**J-3**

P1- keep machine log updated as per SOPs

**Maintain machine log**

P2- keep production log updated as per SOPs

## **KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- give necessity of worktime record keeping
- K-1 describe consumable and non-consumable material.
- K2- define customer's feedback and its importance.

## **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- verify consumables availability through inventory and maintain check sheet.
- report stocks consumption according to job.
- request for material on prescribed indent format.
- carryout consumed items disposal record in consumable register.

## **Important points**

- record activity span of workday and irregular work hours on operation/worksheet.
- maintain over time record as per printing press SOPs.
- keep machine and production log updated as per SOPs.

## Competency Standard K- Perform communication

### Overview

This competency standard refers to the development of skills and competences to perform communication. It also deals with listening practice, adopting questioning technique to lead actual issues in the system, demonstrating telephonic ethics and moral techniques to deal with people related to the work.

Competency Units	Performance Criteria
<b>K-1</b>  <b>Make telephone calls</b>	The learner will be able to:  P1- determine communication styles  P2- investigate issue /problem through relevant questions  P3- demonstrate courteous behavior while listen to the people  P4- perform phone conversation applying time management concisely
<b>K-2</b>  <b>Instruct labors</b>	The learner will be able to:  P1- display body language while communicating to a customer to show attention  P2- communicate within department as per SOPs.  P3- opt language for commanding
<b>K-3</b>  <b>Communicate with supervisor</b>	P1- develop a strategy for using communication skills  P2- convey ideas to the supervisor precisely  P3- report safety hazards to supervisor urgently  P4- maintain good working relation with supervisor
<b>K-4</b>	The learner will be able to:

**Maintain relations with people**

P1-communication with other departments.

P2-communicate effectively with colleagues, peers, the community, other related personnel to exchange information.

P3-interact with other professionals through effective teamwork.

P4- enlist names and address of printing press related people and organization.

<b>K-5</b>	The learner will be able to:
<b>Perform communication</b>	<b>E-mail</b>
	P1- interpret E-mail received on personal E-mail address.
	P2- prepare E-Mail for vendor applying E-mail writing ethics
	P3- send E-mail to vendor enclosed with picture of print design

**KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- concentrate on commands/speeches
- K2- record information about enquiry or complaint as per company's practice
- K1- identify factors required to communicate effectively and precisely within same organization.
- K2- enlist elements required to deal with vendors and the other organizations.
- K4- describe methods to overcome the sentiment.
- K5- opt language which labor could understand elegantly.
- K1- adapt strategy to produce the quality of outcomes required
- K2- describe importance of accurate communication
- K3- write work reports
- K4- fill indent form
- K5- maintain work history
- K1- give advantages of maintaining good occupational relations with printing industry people.
- K1- express steps of creating new e-mail account
- K2- state e-mail writing ethics

K3- state method of e mail sent confirmation

### **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- perform phone conversation applying time management concisely.
- Prepare and send E-mail to vendor enclosed with picture of print design.

### **Important points**

- investigate issue /problem through relevant questions.
- demonstrate courteous behavior while listen to the people.
- communicate within department as per SOPs.
- convey ideas to the supervisor precisely.
- report safety hazards to supervisor urgently.
- interact with other professionals through effective teamwork.

## Competency Standard L- Manage press room waste

### Overview

This Competency Standard identifies the competencies required to manage waste of printing press. A competent individual will be expected to manage paper and other solid waste, liquid toxic and non-toxic waste. This includes underpinning knowledge regarding waste management in printing press.

Competency Units	Performance Criteria
<b>L-1</b>  <b>Manage printing press waste</b>	The learner will be able to:  P1- sort the waste generated at the workplace according to usability  P2- tag the reusable components/item of the waste  P3-maintain record of reusable components of the waste  P4- segregate the scrap according to material properties  P5- follow safety precautions related to waste handling  P6- reduce the waste generation in routine work by reuse the categorized waste as per requirement.  P7- handle hazardous waste according to SOPs.
<b>L-2</b>  <b>Handle toxic chemicals</b>	The learner will be able to:  P1-tag containers of toxic chemical as per SOPs  P2- store toxic waste at place designated for toxic waste as per printing press SOPs  P3- manage Inflammable toxic chemical waste as per printing press SOPs  P4- manage non- inflammable toxic chemical waste as per printing press SOPs
<b>L-3</b>	The learner will be able to:

<b>Handle non-toxic chemicals</b>	<p>P1-tag containers of non-toxic chemical as per SOPs.</p> <p>P2- store nontoxic waste at place designated-to toxic waste as per printing press SOPs.</p> <p>P3- dispose-off inflammable non- toxic chemical waste as per printing press SOPs.</p> <p>P4- dispose-off non- inflammable non-toxic chemical waste as per printing press SOPs.</p>
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**L-4** The learner will be able to:

<b>Handle paper waste</b>	<p>P1- sort paper waste according to disposable categories</p> <p>P2- put paper waste in waste papers container as per printing press SOPs.</p> <p>P3- store paper waste container at place designated to this purpose.</p>
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<b>L-5</b>	The learner will be able to:
<b>Manage solid waste</b>	<p>P1- sort solid waste according to disposable categories.</p> <p>P2- put solid waste in waste bin as per printing press SOPs.</p> <p>P3- store solid waste bin at place designated-to this purpose.</p>

**KNOWLEDGE AND UNDERSTANDING**

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge to:

- K1- concentrate on commands/speeches
- K2- record information about enquiry or complaint as per company’s practice
- K3- identify factors required to communicate effectively and precisely within same organization.
- K4- enlist elements required to deal with vendors and the other organizations.
- K5- describe methods to overcome the sentiment.

- K6- opt language which labor could understand elegantly.
- K7- adapt strategy to produce the quality of outcomes required
- K8- describe importance of accurate communication
- K9- write work reports
- K10- fill indent form
- K11- maintain work history
- K12- give advantages of maintaining good occupational relations with printing industry people.
- K13- express steps of creating new e-mail account
- K14- state e-mail writing ethics
- K15- state method of e mail sent confirmation

### **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- sort & record of waste generated at the workplace according to usability.
- reduce the waste generation in routine work by reuse the categorized waste as per requirement.

### **Important points**

- store toxic waste at place designated for toxic waste as per printing press SOPs.
- manage Inflammable and non-Inflammable toxic chemical waste as per printing press SOPs.
- store nontoxic waste at place designated-to toxic waste as per printing press SOPs.
- Dispose-off inflammable and non-inflammable non- toxic chemical waste as per printing press SOPs.
- store paper waste container at place designated to this purpose.
- store solid waste bin at place designated-to this purpose.

## Occupational health and safety

### Purpose

It is for the safety of persons working in that environment.

### Classification ISCED

0416 Wholesale and retail sales

### Available grade

Competent / Not yet competent

### Modification history

N/A

Unit of Competency	Performance Criteria	Knowledge
<b>I1. Identify and implement safe working practices</b>	You must be able to: P1. Study of facility layout design and operations P2. Implement the health and safety measures	You must know and understand: K1. Knowledge of health and safety precautions

## Communicate in the workplace to support customers and team

### Purpose

This Competency standard identifies the competencies required to communicate in the workplace to support customers and team as per organization's approved guidelines and procedures. You will be expected to communicate face-to-face with customers, use technology to communicate with customers, communicate with customers and colleagues from diverse backgrounds, work in a team, ask appropriate probing / questioning from customers and provide continuous feedback to customers / colleagues. Your underpinning knowledge about basic communication tools and correspondence tactics will be sufficient for you to provide the basics of the work.

### Classification ISCED

### Available grade

Competent / Not yet competent

### Modification history

N/A

Unit of Competency	Performance Criteria	Knowledge
<b>B1. Communicate face-to-face with customers.</b>	<b>You must be able to:</b> P1. Maintain welcoming customer environment that reflects company branding and market position and is in line with the company policy and procedures. P2. Greet customer warmly according to company policy and procedures. P3. Create effective service environment through verbal	<b>You must be able to:</b> K1. Explain different techniques that can be applied when communicate with customer face to face K2. Describe types of customer behavior and dealings K3. Explain different communication skills and techniques K4. Explain the basic key elements of the

	<p>and non-verbal interaction according to company policy and procedures.</p> <p>P4. Use questioning and active listening to determine customer needs.</p> <p>P5. Use positive and inclusive language.</p> <p>P6. Recognize personal factors impact on customer service delivery</p>	<p>communication process.</p> <p>K5. Describe a range of communication methods that can be used to effectively communicate with customers and identify the most appropriate to use in different situations.</p> <p>K6. Explain how 'body language' impacts on the communication process.</p>
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**B2. Use technology to communicate with customers.**

**You must be able to:**

- P1. Answer telephone according to the company procedures.
- P2. Questioning and active listening to identify caller and establish and confirm requirements.
- P3. Use telephone system functions according to instructions.
- P4. Use email, social networking sites and other technologies to receive and process information and customer requests in line with company policy and procedures.
- P5. Record and promptly pass on messages or information.
- P6. Inform customer of any problems and relevant action being taken.
- P7. Perform follow-up action as necessary.

**You must be able to:**

- K1. Identify the recognized principles of communicating electronically, by telephone and in writing.
- K2. Describe the different methods of collecting customer feedback on telephone.
- K3. Explain the importance of collecting customer feedback and how this can be used to improve customer service.
- K4. Describe how technology can affect and enhance the service delivery process.

**B3. Communicate with customers and colleagues from diverse backgrounds.**

**You must be able to:**

- P1. Treat customers and colleagues from diverse backgrounds with respect and sensitivity.
- P2. Consider cultural differences in verbal and non-verbal communication.
- P3. Use gestures or simple words to communicate where

**You must be able to:**

- K1. Identify the barriers to effective communication that can arise and how best to deal with these.
- K2. Identify and explain when it is necessary to seek advice or assistance from colleagues and when to take own initiative.

	<p>language barriers exist.</p> <p>P4. Obtain assistance from colleagues or supervisors when required to facilitate communications.</p>	<p>K3. Describe different types of dealings techniques with different types of behaviors</p>
<p><b>B4. Work in a team.</b></p>	<p><b>You must be able to:</b></p> <p>P1. Display a courteous and helpful manner at all times.</p> <p>P2. Complete allocated tasks willingly, according to set timeframes.</p> <p>P3. Actively seek or provide assistance by approaching other team members when difficulties arise.</p> <p>P4. Identify and use lines of communication with supervisors and peers according to company policy.</p> <p>P5. Encourage, acknowledge and act upon constructive feedback provided by other team members.</p> <p>P6. Use questioning to minimise misunderstandings.</p> <p>P7. Identify signs of potential workplace conflict wherever possible and take action to resolve the situation using open and respectful communication.</p> <p>P8. Participate in team problem solving.</p> <p>P9. Interpret organization's goals and objectives and translate them into individual targets</p> <p>P10. Prepare plan of action to achieve individual as well as team goals</p>	<p><b>You must be able to:</b></p> <p>K1. Define team work.</p> <p>K2. Explain the importance of team work.</p> <p>K3. Define company goals and objectives as well as SOPs of the company</p> <p>K4. Explain different concepts and techniques of problem solving</p> <p>K5. Describe systematic decision making process</p> <p>K6. Describe characteristics of a successful teamwork experience.</p>
<p><b>B5. Ask appropriate probing / questioning from customers</b></p>	<p><b>You must be able to:</b></p> <p>P1. Use different types of questions when appropriate.</p> <p>P2. Allow the other person to answer freely.</p> <p>P3. Collect facts, information and data about the other person's</p>	<p><b>You must be able to:</b></p> <p>K1. Explain:</p> <ul style="list-style-type: none"> <li>• Open-ended questions</li> <li>• Close-ended questions</li> <li>• High gain questions</li> <li>• Mirror questions</li> <li>• Probing questions</li> </ul>

	<p>situation.</p> <p>P4. Focus on the necessary information (information that links directly to product or service)</p>	<ul style="list-style-type: none"> <li>• Situation questions</li> </ul>
<p><b>B6. Provide continuous feed-back</b></p>	<p><b>You must be able to:</b></p> <p>P1. Give and receive feed-back with customers.</p> <p>P2. Apply appropriate body language and read customers body language.</p> <p>P3. Give and receive feed-back with internal departments.</p> <p>P4. Design a communication system / process and share information.</p> <p>P5. Gain commitment from others to work together in the interest of the customers.</p> <p>P6. Conduct meetings.</p> <p>P7. Utilize the feed-back to identify opportunities for product / service improvement.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain how to use customer feed-back to improve your business</p> <p>K2. Define importance of body language.</p> <p>K3. Explain communication ethics.</p> <p>K4. Define organizational Jargon.</p>

## Work effectively in a customer service/ sales environment

### Purpose

This Competency standard identifies the competencies required Work Effectively in a Customer Service/Sales Environment as per Organization's approved guidelines and procedures. You will be expected to work within organizational requirements, support the work team, maintain personal presentation, develop effective work habits, portray ethical behaviour and acquire up to date product / service knowledge. Your underpinning knowledge about Work Effectively in a Customer Service/Sales Environment will be sufficient for you to provide the basics of the work.

### Classification ISCED

0416 Wholesale and retail sales

### Available grade

Competent / Not yet competent

### Modification history

N/A

Unit of Competency	Performance Criteria	Knowledge
<b>F1. Work within organizational requirements.</b>	<b>You must be able to:</b>  P1. Identify and read organisation's requirements and responsibilities and seek advice from appropriate people where necessary.  P2. Interpret staff rosters and provide sufficient notice of unavailability	<b>You must be able to:</b>  K1. Define industry awards and agreements that relate to personal job role and terms and conditions of employment.  K2. Differentiate between employer and employee responsibilities.  K3. Explain different relevant legislation and statutory requirements.

for rostered hours according to workplace policy and procedures.

- P3. Develop and use a current working knowledge and understanding of employee and employer rights and responsibilities.
- P4. Comply with relevant duty of care and legal responsibilities, and support organisational culture.
- P5. Identify roles and responsibilities of colleagues and immediate supervisors.
- P6. Identify standards and values considered to be detrimental to the organisation and communicate this through appropriate channels.
- P7. Identify, recognise and follow behaviour that contributes to a safe and sustainable work environment.

**F2.Support the work team.**

**You must be able to:**

- P1. Display courteous and helpful behaviour at all times.
- P2. Take opportunities to enhance the level of assistance offered to colleagues and meet all reasonable requests for assistance within acceptable workplace timeframes.
- P3. Complete allocated tasks as required.
- P4. Seek assistance when

**You must be able to:**

- K1. Explain the importance of team work
- K2. Define workplace relations
- K3. Explain workplace policies, plans and procedures, including:
  - Dealing with grievances
  - Discriminatory behavior
  - Equal opportunity issues.
  - Staff rosters and notification of shift
  - Availability or non-attendance

- difficulties arise.
- P5. Use questioning techniques to clarify instructions or responsibilities.
- P6. Identify and display a non-discriminatory attitude in all contacts with customers and other staff members.

- Providing customer service to colleagues and customers.

<p><b>F3. Maintain personal presentation.</b></p>	<p><b>You must be able to:</b></p> <p>P1. Observe appropriate dress code and presentation as required by the workplace, job role and level of customer contact.</p> <p>P2. Follow personal hygiene procedures according to organisational policy and relevant legislation.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain hygiene and personal presentation</p> <p>K2. Explain the importance of workplace ethics</p>
<p><b>F4. Develop effective work habits.</b></p>	<p><b>You must be able to:</b></p> <p>P1. Interpret, confirm and act on workplace information, instructions and procedures relevant to the particular task.</p> <p>P2. Ask questions to seek and clarify workplace information.</p> <p>P3. Plan and organise daily work routine within the scope of the job role.</p> <p>P4. Prioritise and complete tasks according to required timeframes.</p> <p>P5. Identify work and personal priorities and achieve a balance between competing priorities</p>	<p><b>You must be able to:</b></p> <p>K1. Explain staff counseling and disciplinary procedures</p> <p>K2. Describe workplace organizational structure.</p>

<b>F5. Portray ethical behavior</b>	<b>You must be able to:</b> P1. Follow ethical code of conduct. P2. Understand your customer's code of ethics. P3. Declare conflict of interest. P4. Maintain confidentiality. P5. Honour your commitments (timeframe, deliverables etc.) P6. Use internet for business only on company time.	<b>You must be able to:</b> K1. Explain the importance of ethical behavior. K2. Explain the importance of commitment in sales and customer services.
<b>F6. Acquire up to date product / service knowledge</b>	<b>You must be able to:</b> P1. Gather information about your product / services. P2. Identify the components of your product and services. P3. Recognize the essential selling features of your products and services. P4. Translate all essential features of your product and services. P5. Analyze product success. P6. Identify your market position. P7. Familiar with all product promotions, sales manuals and product literature. P8. Keep information of latest technology advances and seek ways to use these technologies in your work.	<b>You must be able to:</b> K1. Explain: <ul style="list-style-type: none"> <li>• Price per product.</li> <li>• Profit per product / service.</li> <li>• Price flection</li> <li>• Product strengths</li> <li>• Product weaknesses.</li> <li>• Warranty / guarantee policies.</li> <li>• Packaging facilities and potential.</li> </ul> K2. Explain how your product/service fits into your customers overall operations, business plan, sales success, operation cost etc.

## Develop professionalism

### Purpose

This Competency standard identifies the competencies required to Develop Professionalism as per Organization's approved guidelines and procedures. You will be expected to create a personal vision / mission, manage your attitude, practice self-discipline, manage time, manage your professional development, and participate in trainings and performance review. Your underpinning knowledge about Develop Professionalism will be sufficient for you to provide the basics of the work.

### Classification ISCED

0416 Wholesale and retail sales

### Available grade

Competent / Not yet competent

### Modification history

N/A

Unit of Competency	Performance Criteria	Knowledge
<b>G1. Create a personal vision / mission</b>	<b>You must be able to:</b> P1. Clarify / prioritize self-values and consider the value of others. P2. Clarify expectations of yourself and expectations others have of you. P3. Identify what you need to do to be successful (personal standards, targets, goals, principals) P4. Set specific short and long term goals. P5. Translate the vision into	<b>You must be able to:</b> K1. Explain long and short term goals. K2. Explain why personal vision and mission is important for success. K3. Describe the advantages of personal vision and mission.

	<p>actionable steps.</p> <p>P6. Integrate the vision into daily practice.</p> <p>P7. Recount frequently with your vision and change accordingly.</p>	
<b>G2. Manage your attitude.</b>	<p><b>You must be able to:</b></p> <p>P1. Challenge yourself, break old habits, and move out of your comfort zone.</p> <p>P2. Practice innovative techniques for out of the box creative thinking.</p> <p>P3. Seek out support and feedback from others on the team, in the organization / community etc.</p> <p>P4. Identify daily, weekly accomplishments.</p> <p>P5. Read inspirational material, audiotapes etc.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain the importance of personal and professional motivation</p> <p>K2. Identify your positive attitude.</p> <p>K3. Explain the advantages of innovative ideas and techniques during job.</p>
<b>G3. Practice self-discipline</b>	<p><b>You must be able to:</b></p> <p>P1. Accountable for your performance.</p> <p>P2. Identify what you need to do to be successful.</p> <p>P3. Communicate your priorities to others.</p> <p>P4. Make and honour appointments with yourself and others.</p> <p>P5. Practice relaxation and energizing techniques.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain the importance of communication.</p> <p>K2. Explain the advantages of self-discipline.</p>
<b>G4. Manage time</b>	<p><b>You must be able to:</b></p> <p>P1. Isolate key success activities and prioritize them.</p> <p>P2. Breakdown large tasks down into manageable action steps (set time frame).</p> <p>P3. Create or adopt action plans and follow it.</p> <p>P4. Set aside appropriate blocks of time for goal-related activities.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain the importance of time management to achieve different tasks.</p>

- P5. Make the best possible use of support people / recourses to accomplish tasks.

<p><b>G5.Manage your professional development</b></p>	<p><b>You must be able to:</b></p> <p>P1. Take inventory of your personal interests, abilities, skills, knowledge etc.</p> <p>P2. Identify and prioritize the strengths and gaps.</p> <p>P3. Use available assessment tools.</p> <p>P4. Create a personal growth strategy / career path.</p> <p>P5. Set personal goals and timeframe for achieving them.</p> <p>P6. Learn from your mistakes.</p>	<p><b>You must be able to:</b></p> <p>K1. Explain the importance and need of professional development.</p>
<p><b>G6.Participate in trainings and performance review</b></p>	<p><b>You must be able to:</b></p> <p>P1. Analyse, evaluate and improve performance, and report significant issues/problems to senior management</p> <p>P2. Demonstrate to-do attitude in profession</p> <p>P3. Demonstrate understanding of skills requirements</p> <p>P4. Use the competences acquired in trainings</p>	<p><b>You must be able to:</b></p> <p>K1. Define concept about performance standards.</p> <p>K2. Explain policies, procedures and regulations regarding human resources of the organization.</p> <p>K3. Explain self-planning and management techniques</p> <p>K4. Define goals and strategies of self- development.</p> <p>K5. Explain relevant knowledge about training / job requirements</p>

## Comply with health and safety regulations

### Purpose

This Competency standard identifies the competencies required to comply with health and Safety Regulations as per Organization's approved guidelines and procedures. You will be expected to interpret health and safety regulations, apply basic safety procedures and apply basic emergency procedures. Your underpinning knowledge about comply with health and safety regulations will be sufficient for you to provide the basics of the work.

### Classification ISCED

0416 Wholesale and retail sales

### Available grade

Competent / Not yet competent

### Modification history

N/A

Unit of Competency	Performance Criteria	Knowledge
<b>H1. Interpret health and safety regulations, standards and guidelines of an organization.</b>	<b>You must be able to:</b>  P1. Identify, understand and apply health and safety regulations at workplace  P2. Assess risk of injury and equipment damages in common work situations and report to department concerned for timely response  P3. Participate in quality enhancement of products or services of the	<b>You must be able to:</b>  K1. Explain concepts and principles of health, safety, quality and environment regulations.  K2. Define types of risk of injuring and equipment damages.  K3. Describe types of risk and injury at workplace.  K4. Explain the procedure of dealing with risk and injury situation.

	<p>organization</p> <p>P4. Comply with quality and safety standards effectively</p> <p>P5. Handle toxic and hazardous material and product with caution</p> <p>P6. Assess risk of injuries and accidents and report it to senior management for avoiding serious injuries</p>	<p>K5. Explain health and safety policies and guidelines of the organization.</p> <p>K6. define characteristics and types of toxic and hazardous material or products offered by company and their impact on environment.</p>
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**H2. Apply basic safety procedures.**

**You must be able to:**

- P1. Follow safety procedures to achieve a safe work environment, according to all relevant WHS legislation, including codes of practice relating to particular hazards in the industry or workplace.
- P2. Identify and report unsafe work practices , including faulty plant and equipment according to company policy and procedures
- P3. Manage dangerous goods and substances according to company policy and relevant legislation.
- P4. Identify potential manual handling risks and manage manual handling tasks according to company policy.
- P5. Report work-related incidents and accidents to designated personnel.
- P6. Participate in consultative processes and procedures for WHS.

**You must be able to:**

- K1. Explain appropriate use of personal protective clothing.
- K2. Explain the procedure to eliminating hazards.
- K3. Explain first aid procedures.

<p><b>H3. Apply basic emergency procedures.</b></p>	<p><b>You must be able to:</b></p> <ul style="list-style-type: none"> <li>P1. Follow fire and emergency procedures, including evacuation, according to company policy and legislation.</li> <li>P2. Identify designated personnel responsible for first aid and evacuation procedures.</li> <li>P3. Accurately identifies safety alarms.</li> </ul>	<p><b>You must be able to:</b></p> <ul style="list-style-type: none"> <li>K1. Define fire, chemical and electrical hazards</li> <li>K2. Explain slip, trips and falls</li> <li>K3. Explain the procedure of storage of dangerous goods and hazardous substances and waste.</li> <li>K4. Define communication and consultation processes.</li> <li>K5. Explain manual handling procedures.</li> </ul>
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## COMPLETE LIST OF TOOLS AND EQUIPMENT

Tools list		
S.No.	Description	specification
1.	Allen key set	Complete set
2.	Calibrated beaker	Standard (when multi-color machine is installed)
3.	Calibrated or packing sheet	As per machine specs
4.	Cleaning Brush	Regular cloth washing brush
5.	Correcting brush	Standard # 3
6.	Din cup	Standard 4mm
7.	Docket	20"x30" large envelops or Box
8.	Dust bin	Large size 2 units
9.	Eye/magnifying glass	8 TO 10X
10.	Fixed SPANNER SET	Complete set
11.	Grease gun	With Complete nozzel set
12.	Grip pliers	standard
13.	Lock pliers	set
14.	Micro meter	standard
15.	Pliers set	standard complete set of 4 pcs
16.	Pre-piling stand	40" heavy duty table
17.	Punch set	Complete set
18.	Punching machine	As per machine size
19.	Ratchet set/ Torque wrench	Complete set
20.	Screw driver set	Complete set
21.	Spaggle/ scraper (Chansa)	6 units
22.	Spanners set	Complete set

23.	Steel ruler	36"
24.	Thermometer	Standard to monitor room temperature
25.	Tommy Bar set	Complete set and one specific size which usually came with machine
26.	Vernier calipers	standard
27.	Waste trolley	2-3 FT Height Blue drums 3 units

### Equipment list

Sr. #	Description	Specifications
1.	Computer set with Internet	Desktop With 19" To 24" Led Screen Intel Core I7 2600 3.40ghz 4 To 8gb Ddr3 Ram 500gb Sata Hdd Dvd Rom Intel Q67 Express Chipset Built-In Sound, Lan Full Original Tower Or Similar Specs No Amd Processor Plz
2.	Multimedia set	Standard requirement
3.	ph/ Conductivity meter	STANDARD- Preferable HANNA
5.	Hydro- meter	Standard 0-100%
6.	Hygromet /Humidity meter	10 to 95 % RH
7.	Light booth	3 lights OPTIONAL
8.	Single color printing machine (2 units) (Heidelberg recommended by NQDC)	GTO 46/52 (size) Model 1980 or above With conventional dampening
9.	MULTICOLOR OFFSET PRINTING MACHINE IF REQUIRED  (HEIDELBERG: RECOMMENDED BY NQDC)	SM 74-2 (size) CPC-control Register integrated, Alcolor, Auto plate, Baldwin dampening circulation and cooling, ink unit washing device, blanket cylinder washing device, plate cylinder chromed, Non Stop pile feeder, double sheet control, pullguide control, Non Stop delivery rake, sheet decurler, powder

		device
10.	Paper weighing machine	standard
11.	pH meter	DUPLICATE ALREADY MENTION ABOVE
12.	Plate reader (Xrite/ Techkon: recommended by NQDC)	Advance Specs
13.	Multifunction Printer	A3 size
14.	Spectrophotometer (Xrite/ Techkon: recommended by NQDC)	ADVANCE SPECS

List of Personal Protective Equipment		
Sr. #	Description	Specifications
1.	First AID Box	With full emergency kit
2.	Fire Extinguisher Cylinder	Co2- 5 Kg
3.	Fire Blanket	Standard
4.	Safety Gloves	Leather
5.	safety googles	White
6.	Safety mask	Medical mask (disposable)
7.	Formal Uniform for Work	Half sleeves T-shirts & trouser
8.	Safety Shoes	Protective Toe Work Safety Shoes
9.	Ear Protector	During training we do not need because we do test runs only not production