



Milk Tester

QP Code: AGR/Q4203

Version: 3.0

NSQF Level: 3

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Contents

AGR/Q4203: Milk Tester	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
AGR/N4210: Prepare and Maintain Work Area and Equipment for Milk Testing	5
AGR/N4211: Prepare for Quality Analysis and Manage Housekeeping for Milk Testing	9
AGR/N4212: Sampling and Quality Analysis for Milk Testing	14
AGR/N4213: Documentation and Record-keeping Related to Milk Testing	19
AGR/N4214: Safety, Hygiene and Sanitation for Milk Testing	23
DGT/VSQ/N0101: Employability Skills (30 Hours)	28
Assessment Guidelines and Weightage	33
<i>Assessment Guidelines</i>	33
<i>Assessment Weightage</i>	34
Acronyms	35
Glossary	36

AGR/Q4203: Milk Tester

Brief Job Description

A Milk Tester is responsible for testing and ensuring the quality of milk procured from each individual producer member at the Dairy Cooperative Society.

Personal Attributes

A Milk Tester must have the ability to plan, organize and prioritize. The individual must possess reading, writing and communication skills. In addition, the individual must have personal and professional hygiene. The Individual must have an understanding of food safety standards and requirements.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [AGR/N4210: Prepare and Maintain Work Area and Equipment for Milk Testing](#)
2. [AGR/N4211: Prepare for Quality Analysis and Manage Housekeeping for Milk Testing](#)
3. [AGR/N4212: Sampling and Quality Analysis for Milk Testing](#)
4. [AGR/N4213: Documentation and Record-keeping Related to Milk Testing](#)
5. [AGR/N4214: Safety, Hygiene and Sanitation for Milk Testing](#)
6. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Agriculture
Sub-Sector	Dairying
Occupation	Milk Collection and Handling
Country	India
NSQF Level	3
Credits	9
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL

Minimum Educational Qualification & Experience	10th Class OR 8th Class (with two years of (NTC/ NAC) after 8th) OR 8th grade pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2 Years of experience relevant experience OR 5th grade pass with 5 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 2) with 1 Year of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 2.5) with 6 Months of experience relevant experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	NA
Next Review Date	24/02/2025
Deactivation Date	17/12/2024
NSQC Approval Date	24/02/2022
Version	3.0
Reference code on NQR	QG-03-AG-00343-2023-V1.1-ASCI
NQR Version	1.1

AGR/N4210: Prepare and Maintain Work Area and Equipment for Milk Testing

Description

This OS unit is about preparing the work area for hygiene and safety, and ensuring performance, efficiency and maintenance of laboratory equipment and tools, for milk testing, as per the specifications and standards of the organization.

Scope

The scope covers the following :

- Prepare and maintain work area (for milk testing)
- Prepare and maintain lab equipment and tools (for milk testing)

Elements and Performance Criteria

Prepare and maintain work area (for milk testing)

To be competent, the user/individual on the job must be able to:

- PC1.** clean and maintain the work area using approved sanitizers and keep it free from dust, waste, and spillage
- PC2.** ensure the work area is safe and hygienic for milk analysis and testing
- PC3.** prepare a cleanliness checklist and ensure that all points are covered before starting the quality tests
- PC4.** dispose waste materials as per defined SOPs and industry requirements

Prepare and maintain lab equipment and tools (for milk testing)

To be competent, the user/individual on the job must be able to:

- PC5.** check the performance of all equipment and tools used for testing (weighing, pH meter, lactometers, moisture analyser, sterilizer, flasks, refractometer, TDS (Total Dissolved Solvents) meter)
- PC6.** clean the equipment and glassware used with recommended sanitizers following specifications and organization standards
- PC7.** organize glass wares and equipment for analysis

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organization standards, process standards, and procedures followed for testing of milk
- KU2.** the types of chemicals, reagents and equipment required for the cleaning and maintenance
- KU3.** the types of glasswares used in testing
- KU4.** the principles and procedures for calibration of testing equipment and standardization of testing chemicals and reagents
- KU5.** cleaning methods for all equipment
- KU6.** supplier/manufacturer instructions related to cleaning and maintenance of equipment

KU7. safety standards and regulations (as per FSSAI)

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** note the information communicated by the supervisor
- GS2.** read and interpret the Standard Operating Procedures for testing milk
- GS3.** read equipment manuals and process documents to understand the lab equipment operation
- GS4.** effectively communicate with the team members
- GS5.** analyze critical points in the day-to-day tasks through experience and observation and identify control measures to solve the issue
- GS6.** plan and prioritize the work based on the instructions received from the supervisor
- GS7.** organize all process/equipment manuals so as to access information easily
- GS8.** use acquired knowledge of the process for identifying and handling issues

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare and maintain work area (for milk testing)</i>	18	25	-	22
PC1. clean and maintain the work area using approved sanitizers and keep it free from dust, waste, and spillage	-	-	-	-
PC2. ensure the work area is safe and hygienic for milk analysis and testing	-	-	-	-
PC3. prepare a cleanliness checklist and ensure that all points are covered before starting the quality tests	-	-	-	-
PC4. dispose waste materials as per defined SOPs and industry requirements	-	-	-	-
<i>Prepare and maintain lab equipment and tools (for milk testing)</i>	12	13	-	10
PC5. check the performance of all equipment and tools used for testing (weighing, pH meter, lactometers, moisture analyser, sterilizer, flasks, refractometer, TDS (Total Dissolved Solvents) meter)	-	-	-	-
PC6. clean the equipment and glassware used with recommended sanitizers following specifications and organization standards	-	-	-	-
PC7. organize glass wares and equipment for analysis	-	-	-	-
NOS Total	30	38	-	32

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N4210
NOS Name	Prepare and Maintain Work Area and Equipment for Milk Testing
Sector	Agriculture
Sub-Sector	Dairying
Occupation	Milk Collection and Handling
NSQF Level	3
Credits	2
Version	3.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

AGR/N4211: Prepare for Quality Analysis and Manage Housekeeping for Milk Testing

Description

This OS unit is about preparation for quality analysis of milk through calibration of equipment and preparing reagents and managing housekeeping as per the specifications and standards of the organization.

Scope

The scope covers the following :

- Calibrate and maintain equipment (for milk testing)
- Prepare reagents (for milk testing)
- Manage housekeeping (for milk testing)

Elements and Performance Criteria

Calibrate and maintain equipment (for milk testing)

To be competent, the user/individual on the job must be able to:

- PC1.** handle and maintain tools (deadweights, calibrated measuring jars) and reagents (standard solutions) used for calibration of equipment following laboratory procedures and standards
- PC2.** maintain a list of all equipment along with its calibration frequency
- PC3.** maintain a list of all equipment along with the details of the annual maintenance contract
- PC4.** record all details on lab equipment like performance, faults, repairs, annual maintenance, etc. in the equipment register and in ERP

Prepare reagents (for milk testing)

To be competent, the user/individual on the job must be able to:

- PC5.** ensure availability of distilled water and standard solutions at all times
- PC6.** weigh required chemicals and measure solvents in calibrated instruments and measuring jars
- PC7.** mix solvents and chemicals and follow the required procedure for preparing the reagents
- PC8.** store the chemicals, solvents, acids, reagents, etc. following the manufacturer's instructions or following laboratory procedures and standards
- PC9.** ensure and maintain inventory of all lab chemicals, glassware, consumables, equipment spares, etc.
- PC10.** maintain a list of all chemicals, solvents, acids, reagents, glass wares, consumables, equipment spares, etc. used in the laboratory
- PC11.** check the inventory of lab chemicals, glassware, consumables, equipment spares at regular intervals in the register and ERP and update the lab technicians on the inventory status
- PC12.** clean the glassware used for analysis with recommended detergents, disinfectants and sanitizers

Manage housekeeping (for milk testing)

To be competent, the user/individual on the job must be able to:

- PC13.** read and understand the SOP and checklist for housekeeping
- PC14.** recognize the suggested corrective action
- PC15.** ensure to implement the corrective action immediately
- PC16.** file the housekeeping checklist

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of chemicals, reagents used in the laboratory of the organization
- KU2.** organization's procedure for calibration of equipment
- KU3.** equipment used in the laboratory and its maintenance procedure
- KU4.** the frequency for calibration of equipment
- KU5.** reagents required for calibration, analysis of procured milk and containers
- KU6.** procedure for preparation of all reagents required for analysis of procured milk, containers and finished products
- KU7.** basic milk microbiology
- KU8.** various laboratory techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write reports for quality analysis of procured milk, milk in the chilling unit, milk in containers, etc.
- GS2.** write information documents to internal departments/ internal teams
- GS3.** read and interpret the process required for producing various types of products
- GS4.** discuss task lists, schedules and activities with the supervisor
- GS5.** effectively communicate with the team members
- GS6.** plan and organize the work order and jobs received from the supervisor
- GS7.** plan and prioritize the work based on the instructions received from the supervisor
- GS8.** plan to utilize time and equipment effectively
- GS9.** use reasoning skills to identify and resolve basic problems

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Calibrate and maintain equipment (for milk testing)</i>	12	10	-	9
PC1. handle and maintain tools (deadweights, calibrated measuring jars) and reagents (standard solutions) used for calibration of equipment following laboratory procedures and standards	-	-	-	-
PC2. maintain a list of all equipment along with its calibration frequency	-	-	-	-
PC3. maintain a list of all equipment along with the details of the annual maintenance contract	-	-	-	-
PC4. record all details on lab equipment like performance, faults, repairs, annual maintenance, etc. in the equipment register and in ERP	-	-	-	-
<i>Prepare reagents (for milk testing)</i>	22	15	-	8
PC5. ensure availability of distilled water and standard solutions at all times	-	-	-	-
PC6. weigh required chemicals and measure solvents in calibrated instruments and measuring jars	-	-	-	-
PC7. mix solvents and chemicals and follow the required procedure for preparing the reagents	-	-	-	-
PC8. store the chemicals, solvents, acids, reagents, etc. following the manufacturer's instructions or following laboratory procedures and standards	-	-	-	-
PC9. ensure and maintain inventory of all lab chemicals, glassware, consumables, equipment spares, etc.	-	-	-	-
PC10. maintain a list of all chemicals, solvents, acids, reagents, glass wares, consumables, equipment spares, etc. used in the laboratory	-	-	-	-
PC11. check the inventory of lab chemicals, glassware, consumables, equipment spares at regular intervals in the register and ERP and update the lab technicians on the inventory status	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. clean the glassware used for analysis with recommended detergents, disinfectants and sanitizers	-	-	-	-
<i>Manage housekeeping (for milk testing)</i>	12	7	-	5
PC13. read and understand the SOP and checklist for housekeeping	-	-	-	-
PC14. recognize the suggested corrective action	-	-	-	-
PC15. ensure to implement the corrective action immediately	-	-	-	-
PC16. file the housekeeping checklist	-	-	-	-
NOS Total	46	32	-	22

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N4211
NOS Name	Prepare for Quality Analysis and Manage Housekeeping for Milk Testing
Sector	Agriculture
Sub-Sector	
Occupation	Milk Collection and Handling
NSQF Level	3
Credits	2
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

AGR/N4212: Sampling and Quality Analysis for Milk Testing

Description

This OS unit is about conduct sampling and quality analysis of procured milk as per the specifications and standards of the organization.

Scope

The scope covers the following :

- Collect sample for quality analysis for milk testing
- Conduct quality analysis of samples

Elements and Performance Criteria

Collect sample for quality analysis of milk

To be competent, the user/individual on the job must be able to:

- PC1.** collect the sample of procured milk (milk procured directly from farmers) from the delivery truck/warehouse/storage area following SOP
- PC2.** collect the sample of the finished milk and milk product(s) from the milk collection center or production storage area/warehouse
- PC3.** collect the pre-shipment samples sent by the milk producers/milk product vendors from MCC or the processing unit
- PC4.** ensure that the liquid milk in cans and bulk tanks is thoroughly mixed to disperse the milk fat before a milk sample is taken for any chemical control test
- PC5.** use plungers and dippers to take out the sampling milk from milk cans
- PC6.** label the samples with details like the name of farmer/milk producer, records of dates and place of procurement
- PC7.** collect all documents pertaining to incoming lab samples like a copy of procurement order, invoice, certificate of analysis, etc. for verification and records
- PC8.** transfer the samples to the milk testing lab and place them in the designated area for analysis
- PC9.** verify the certificate of analysis (COA) against organization standards
- PC10.** monitor and maintain the storage conditions (like temperature, humidity, cleanliness, etc.) of the control sample

Conduct quality analysis of samples

To be competent, the user/individual on the job must be able to:

- PC11.** carry out analysis in calibrated equipment following standard operating procedure
- PC12.** perform basic tests on physical parameters like extraneous matter, colour, appearance, texture, weight, etc. on milk and milk product samples collected
- PC13.** perform basic chemical analysis like moisture content, bulk density, pH, total soluble solids (TSS) using a refractometer, etc
- PC14.** enter the results in the ERP system (in case a computerized system is used)
- PC15.** clean the glassware used with recommended detergents, disinfectants and sanitizers
- PC16.** clean and maintain equipment used, following maintenance procedures for equipment

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** methods to verify supplier documents against organization standards
- KU2.** organization procedures for storing, maintaining and disposing of production control samples
- KU3.** organization procedure for preparation of all reagents required for analysis of procured milk and containers
- KU4.** types of procured milk and containers used in the organization
- KU5.** the equipment used in the laboratory and its maintenance procedure
- KU6.** required reagents for analysis of procured milk and containers
- KU7.** the frequency for preparation of required reagents
- KU8.** sampling methods and procedures for procured milk
- KU9.** methods and procedures for maintaining shelf-life samples and carrying out shelf-life studies
- KU10.** attending and handling market complaints
- KU11.** inventory management of lab supplies

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** note the procured milk used for production and the finished products produced
- GS2.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS3.** read and interpret the process required for producing various types of products
- GS4.** read equipment manuals and process documents to understand the equipment's operation and process requirements
- GS5.** communicate clearly with the supervisor and cross-department teams on the issues faced during the process
- GS6.** analyze critical points in the day-to-day tasks through experience and observation and identify control measures to solve the issue
- GS7.** plan and prioritize the work based on the instructions received from the supervisor
- GS8.** plan to utilize time and equipment effectively
- GS9.** organize all process/equipment manuals so as to access information easily
- GS10.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS11.** use reasoning skills to identify and resolve basic problems

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Collect sample for quality analysis of milk</i>	30	22	-	9
PC1. collect the sample of procured milk (milk procured directly from farmers) from the delivery truck/warehouse/storage area following SOP	-	-	-	-
PC2. collect the sample of the finished milk and milk product(s) from the milk collection center or production storage area/warehouse	-	-	-	-
PC3. collect the pre-shipment samples sent by the milk producers/milk product vendors from MCC or the processing unit	-	-	-	-
PC4. ensure that the liquid milk in cans and bulk tanks is thoroughly mixed to disperse the milk fat before a milk sample is taken for any chemical control test	-	-	-	-
PC5. use plungers and dippers to take out the sampling milk from milk cans	-	-	-	-
PC6. label the samples with details like the name of farmer/milk producer, records of dates and place of procurement	-	-	-	-
PC7. collect all documents pertaining to incoming lab samples like a copy of procurement order, invoice, certificate of analysis, etc. for verification and records	-	-	-	-
PC8. transfer the samples to the milk testing lab and place them in the designated area for analysis	-	-	-	-
PC9. verify the certificate of analysis (COA) against organization standards	-	-	-	-
PC10. monitor and maintain the storage conditions (like temperature, humidity, cleanliness, etc.) of the control sample	-	-	-	-
<i>Conduct quality analysis of samples</i>	16	17	-	6
PC11. carry out analysis in calibrated equipment following standard operating procedure	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. perform basic tests on physical parameters like extraneous matter, colour, appearance, texture, weight, etc. on milk and milk product samples collected	-	-	-	-
PC13. perform basic chemical analysis like moisture content, bulk density, pH, total soluble solids (TSS) using a refractometer, etc	-	-	-	-
PC14. enter the results in the ERP system (in case a computerized system is used)	-	-	-	-
PC15. clean the glassware used with recommended detergents, disinfectants and sanitizers	-	-	-	-
PC16. clean and maintain equipment used, following maintenance procedures for equipment	-	-	-	-
NOS Total	46	39	-	15

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N4212
NOS Name	Sampling and Quality Analysis for Milk Testing
Sector	Agriculture
Sub-Sector	Dairying
Occupation	Milk Collection and Handling
NSQF Level	3
Credits	2
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

AGR/N4213: Documentation and Record-keeping Related to Milk Testing

Description

This OS unit is about documenting and maintaining records of sampling and analysis of procured milk, containers, equipment calibration and regulatory requirements, for performing milk testing.

Scope

The scope covers the following :

- Documentation and record maintenance of procured milk and containers
- Documentation and record maintenance of equipment and calibrations

Elements and Performance Criteria

Documentation and record maintenance of procured milk and containers

To be competent, the user/individual on the job must be able to:

- PC1.** Perform documentation of procured milk and sampled containers
- PC2.** Perform documentation of sampling procedure, supplier information
- PC3.** maintain records on procured milk and container analysis such as parameters analyzed, method of analysis, tests performed on the milk
- PC4.** load the analysis details in ERP for future reference (in case a computerized system is used)

Documentation and record maintenance of equipment and calibrations

To be competent, the user/individual on the job must be able to:

- PC5.** document and maintain records on equipment used for analysis, condition of the equipment, equipment parameter, equipment performance, time taken for analysis, etc. as per company standards
- PC6.** document and maintain records on equipment used for analysis, condition of the equipment, equipment parameter, equipment performance, time taken for analysis, etc
- PC7.** maintain record of observations or deviations (if any)
- PC8.** load the details in ERP for future reference

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** documentation system followed in the organization such as procured milk analysis chart, containers analysis chart, complaint sample analysis chart
- KU2.** the ERP system followed by the organization
- KU3.** the details to be recorded of procured milk, containers, production sample, control sample, market sample, shelf-life sample
- KU4.** the details to be recorded and maintained of equipment, calibration, maintenance
- KU5.** methods to track back the record from procured milk to finished milk and milk products
- KU6.** basic computer knowledge

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS2.** write information documents to internal departments/internal teams
- GS3.** read equipment manuals and process documents to understand the equipment's operation and process requirements
- GS4.** discuss task lists, schedules and activities with the supervisor
- GS5.** effectively communicate with the team members
- GS6.** communicate clearly with the supervisor and cross-department teams on the issues faced during the process
- GS7.** plan and organize the work order and jobs received from the supervisor
- GS8.** plan and prioritize the work based on the instructions received from the supervisor
- GS9.** discuss the possible solutions with the supervisor for problem-solving
- GS10.** use reasoning skills to identify and resolve basic problems
- GS11.** use acquired knowledge of the process for identifying and handling issues

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Documentation and record maintenance of procured milk and containers</i>	20	15	-	9
PC1. Perform documentation of procured milk and sampled containers	-	-	-	-
PC2. Perform documentation of sampling procedure, supplier information	-	-	-	-
PC3. maintain records on procured milk and container analysis such as parameters analyzed, method of analysis, tests performed on the milk	-	-	-	-
PC4. load the analysis details in ERP for future reference (in case a computerized system is used)	-	-	-	-
<i>Documentation and record maintenance of equipment and calibrations</i>	20	26	-	10
PC5. document and maintain records on equipment used for analysis, condition of the equipment, equipment parameter, equipment performance, time taken for analysis, etc. as per company standards	-	-	-	-
PC6. document and maintain records on equipment used for analysis, condition of the equipment, equipment parameter, equipment performance, time taken for analysis, etc	-	-	-	-
PC7. maintain record of observations or deviations (if any)	-	-	-	-
PC8. load the details in ERP for future reference	-	-	-	-
NOS Total	40	41	-	19

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N4213
NOS Name	Documentation and Record-keeping Related to Milk Testing
Sector	Agriculture
Sub-Sector	Dairying
Occupation	Milk Collection and Handling
NSQF Level	3
Credits	1
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

AGR/N4214: Safety, Hygiene and Sanitation for Milk Testing

Description

This OS unit is about maintaining safety, hygiene and sanitation in work area and processing unit for milk testing

Scope

The scope covers the following :

- Maintain Hygiene and sanitation for milk testing related functions
- Maintain safety practices for milk testing

Elements and Performance Criteria

Maintain Hygiene and sanitation for milk testing related functions

To be competent, the user/individual on the job must be able to:

- PC1.** comply with hygiene and sanitation procedures followed in the organization
- PC2.** ensure personal hygiene by use of gloves, hairnets, shoes, etc.
- PC3.** ensure hygienic production of milk by inspecting procured milk for compliance to physical, chemical and microbiological parameters
- PC4.** clean, maintain and monitor milk processing equipment periodically, using it only for the specified purpose
- PC5.** follow housekeeping practices by having a designated area for materials/tools
- PC6.** provide training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them
- PC7.** identify, document and report problems such as rodents and pests to supervisors
- PC8.** conduct workplace checklist audits before and after work to ensure safety and hygiene

Maintain safety practices for milk testing

To be competent, the user/individual on the job must be able to:

- PC9.** comply with safety procedures followed in the organization
- PC10.** determine the quality of milk using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage
- PC11.** safely store procured milk and allergens separately to prevent cross-contamination
- PC12.** perform labeling of procured milk and store them in designated storage areas according to safe food practices

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organization methods of maintaining safety checklists
- KU2.** organization methods for cleaning and sanitation of equipment and work area
- KU3.** food safety and hygiene standards to be followed

- KU4.** possible physical, chemical and biological hazards and methods of prevention of various hazards
- KU5.** personal hygiene requirement
- KU6.** different types of sanitizers used for process area, equipment and the procedure to use them
- KU7.** the dairy safety standards and regulations (as per FSSAI)
- KU8.** quality parameters and quality assessment based on physical parameters, basic milk chemistry
- KU9.** labeling/marketing requirements for procured milk stored materials, containers and their designated storage area
- KU10.** storage norms for procured milk, container and finished products

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS2.** write information documents to internal departments/ internal teams
- GS3.** read equipment manuals and process documents to understand the equipment's operation and process requirements
- GS4.** discuss task lists, schedules and activities with the supervisor
- GS5.** effectively communicate with the team members
- GS6.** communicate clearly with the supervisor and cross-department teams on the issues faced during the process
- GS7.** analyze critical points in the day-to-day tasks through experience and observation and identify control measures to solve the issue
- GS8.** plan and organize the work order and jobs received from the supervisor
- GS9.** plan to utilize time and equipment effectively
- GS10.** discuss the possible solutions with the supervisor for problem-solving
- GS11.** use acquired knowledge of the process for identifying and handling issues

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain Hygiene and sanitation for milk testing related functions</i>	19	27	-	16
PC1. comply with hygiene and sanitation procedures followed in the organization	-	-	-	-
PC2. ensure personal hygiene by use of gloves, hairnets, shoes, etc.	-	-	-	-
PC3. ensure hygienic production of milk by inspecting procured milk for compliance to physical, chemical and microbiological parameters	-	-	-	-
PC4. clean, maintain and monitor milk processing equipment periodically, using it only for the specified purpose	-	-	-	-
PC5. follow housekeeping practices by having a designated area for materials/tools	-	-	-	-
PC6. provide training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them	-	-	-	-
PC7. identify, document and report problems such as rodents and pests to supervisors	-	-	-	-
PC8. conduct workplace checklist audits before and after work to ensure safety and hygiene	-	-	-	-
<i>Maintain safety practices for milk testing</i>	14	18	-	6
PC9. comply with safety procedures followed in the organization	-	-	-	-
PC10. determine the quality of milk using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage	-	-	-	-
PC11. safely store procured milk and allergens separately to prevent cross-contamination	-	-	-	-
PC12. perform labeling of procured milk and store them in designated storage areas according to safe food practices	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	33	45	-	22

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N4214
NOS Name	Safety, Hygiene and Sanitation for Milk Testing
Sector	Agriculture
Sub-Sector	Dairying
Occupation	Milk Collection and Handling
NSQF Level	3
Credits	1
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values – Citizenship

To be competent, the user/individual on the job must be able to:

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

To be competent, the user/individual on the job must be able to:

PC4. speak with others using some basic English phrases or sentences

Communication Skills

To be competent, the user/individual on the job must be able to:

PC5. follow good manners while communicating with others

PC6. work with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

To be competent, the user/individual on the job must be able to:

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

To be competent, the user/individual on the job must be able to:

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

KU10. how to compute income and expenses

KU11. importance of maintaining safety and security in financial transactions

- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	17/11/2022
Next Review Date	30/06/2025
NSQC Clearance Date	17/11/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training centre (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 50% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 50

(**Please note:** Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AGR/N4210.Prepare and Maintain Work Area and Equipment for Milk Testing	30	38	-	32	100	20
AGR/N4211.Prepare for Quality Analysis and Manage Housekeeping for Milk Testing	46	32	-	22	100	20
AGR/N4212.Sampling and Quality Analysis for Milk Testing	46	39	-	15	100	25
AGR/N4213.Documentation and Record-keeping Related to Milk Testing	40	41	-	19	100	15
AGR/N4214.Safety, Hygiene and Sanitation for Milk Testing	33	45	-	22	100	15
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	215	225	-	110	550	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.