

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AGRICULTURE & ALLIED INDUSTRY

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What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack-Artificial Insemination Technician

SECTOR: AGRICULTURE AND ALLIED

SUB-SECTOR: AGRICULTURE ALLIED ACTIVITY

OCCUPATION: LIVESTOCK HEALTH MANAGEMENT

REFERENCE ID: AGR /Q4803

ALIGNED TO: NCO-2004/NIL

Artificial Insemination Technician: An Artificial Insemination Technician (AI Technician) also known as *Communtiy Animal Husbandry Assistant, Gopal mitra, prani bandhu* etc. is a person preferably selected from his/her own community, primarily to assist farmers in cattle breeding and management of dairy animals. He / she normally works under direct supervision and monitoring of any registered development / private / producer led agency.

Brief Job Description: An Artificial Insemination Technician (AI Technician) provides cattle breeding, management and development related services mostly in the outdoor setting.

Personal Attributes: An AI Technician should have a mind for science, belongingness to the community, compassion for animals, good leadership, communication and observation skills. He / she should be physically strong and have manual dexterity to perform on the job.

Job Details	Qualifications Pack Code	AGR/Q4803		
	Job Role	Artificial Insemination Technician		
	Credits NSQF	TBD	Version number	1.0
	Sector	Agriculture & Allied	Drafted on	09/12/14
	Sub-sector	Agriculture Allied Activity	Last reviewed on	23/12/14
	Occupation	Livestock Health Management	Next review date	23/12/15

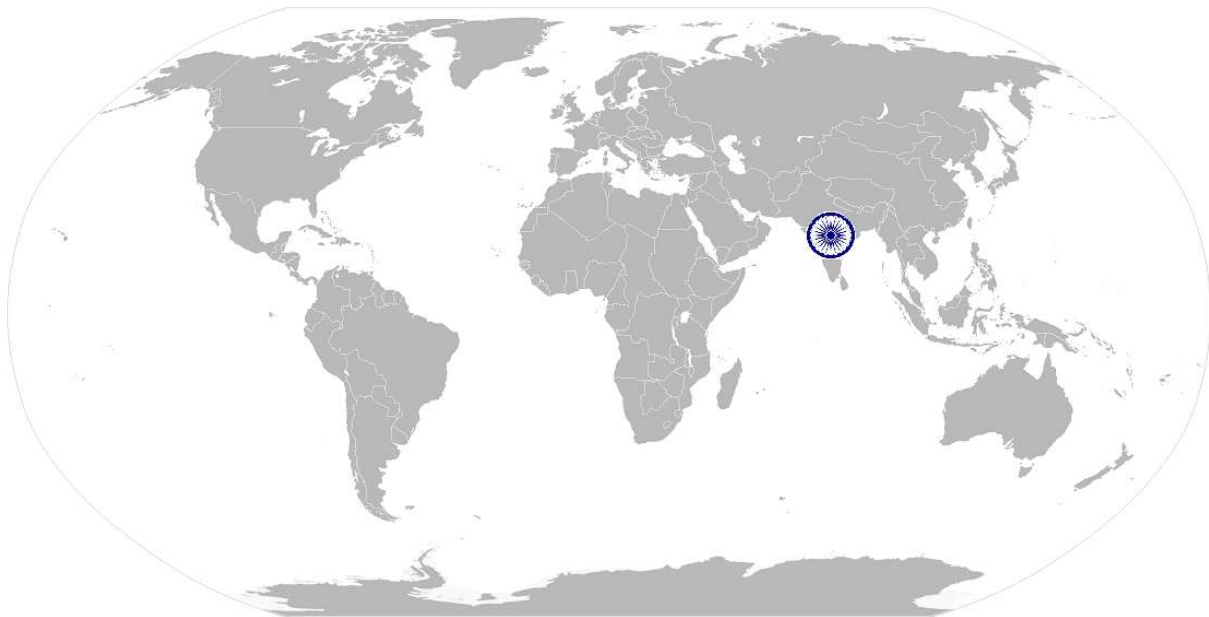
Job Role	Artificial Insemination Technician <i>(Also called as Gopal Mitra / Pranibandhu / Community Animal Husbandry Assistant)</i>
Role Description	To assist his / her immediate community by providing cattle breeding, management and business development related services to farmers.
NSQF level	3
Minimum Educational Qualifications	8th Standard passed
Maximum Educational Qualifications	Not applicable
Training	Not Mandatory
Experience	One year of experience in community / village level work is preferable.
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> AGR/N4820 : Implementation of cattle breeding services AGR/N4808 : Assisting in veterinary extension services. AGR/N4810 : Development program implementation and marketing in livestock sector <p>Optional: Not Applicable</p>
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses 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.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standard	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standard (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualification Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualification Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification 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.
Knowledge and understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization 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 or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working 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.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry
Keywords /Terms	Description
TBD	To Be Decided
QP	Qualifications Pack
OS	Occupational Standard
NOS	National Occupational Standard
NSQF	National Skills and Qualification Framework
NVEQF	National Vocational Education and Qualification Framework
OJT	On Job Training

Acronyms



AGR/N4820: Implementation of cattle breeding services



National Occupational Standard

Overview

This unit deals with cattle breeding services

AGR/N4820: Implementation of cattle breeding services

National Occupational Standard

Unit Code	AGR/N4820
Unit Title (Task)	Implementation of cattle breeding services
Description	This OS unit is about assisting organization in implementing programs related to cattle breeding.
Scope	This unit/task covers: Various aspects of cattle breeding, starting from pre-breeding related activities such as breeder database maintenance and quality cattle selection to actual breeding and performance monitoring.
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Maintenance of database of good cattle breeders.	To be competent, the individual on the job must be able to: PC1. help farmers / clients with information on sources of good breeding animals.
Assistance to farmers in quality cattle selection / purchase.	To be competent, the individual on the job must be able to: PC2. assist farmers / clients in selecting animal with proper breed and other characteristics for breeding purpose.
Conducting artificial insemination	To be competent, the individual on the job must be able to: PC3. detect heat in cattle. PC4. use semen of appropriate quality and blood level. PC5. follow protocols pertaining to biosecurity, safety, hygiene and welfare PC6. follow the prescribed procedures in handling semen straw and in conducting insemination. PC7. conduct artificial insemination in time.
Assistance to farmers on management of unproductive animals.	To be competent, the individual on the job must be able to: PC8. guide farmers / clients on appropriate feeding practices required for breeding animals e.g. mineral supplementation etc. PC9. guide farmers on maintaining optimum number of animals based on breeding plan and suggested performance goal.
Post insemination data recording and performance monitoring of breeding services	To be competent, the individual on the job must be able to: PC10. use field data collection tools (including electronic reader / mobile based data collection) as per given specifications. PC11. provide organization with standard required information such as semen used; time of heat, time of insemination, calf born etc. needed to monitor breeding services.
Knowledge and Understanding (K)	


AGR/N4820: Implementation of cattle breeding services

A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant organizational policy on breeding. KA2. understanding of reporting structure.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic of reproductive physiology e.g. estrous cycle, signs etc. and anatomy of reproductive organs. KB2. basic of genetics e.g. selective breeding / cross breeding KB3. semen straw handling procedure and safety requirement in handling of liquid nitrogen. KB4. protocols related to bio-security, hygiene, safety and animal welfare. KB5. technical procedure of artificial insemination. KB6. feeding of breeding animals , mineral supplementation etc.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. prepare a brief case report. SA2. fill monitoring related forms etc.
	Reading Skills
The user/individual on the job needs to know and understand how to: SA3. read government / organizational guideline / manuals. SA4. read label of semen straws. SA5. read manufacturer guideline of various common equipment uses in breeding services. SA6. read directives from government / organization .	
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA7. discuss task lists, schedules, etc. with co-workers SA8. explain farmers / clients on artificial insemination procedures. SA9. give clear suggestions / guidance to farmers / clients.
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make decisions related to time, appropriate application of artificial insemination technologies etc.
Plan and Organize	

AGR/N4820: Implementation of cattle breeding services

	The user/individual on the job needs to know and understand: SB2. how to plan various procedures.
	Skills of using computer / electronic gadgets and other communication tools.
	The user/individual on the job needs to know and understand how to: SB3. use electronic / mobile tools (where available) to record and send breeding related data to servers.
	Analyzing and investigating
	The user/individual on the job needs to know and understand how to: SB4. investigate and analyze in relation to difficulties, failures etc.

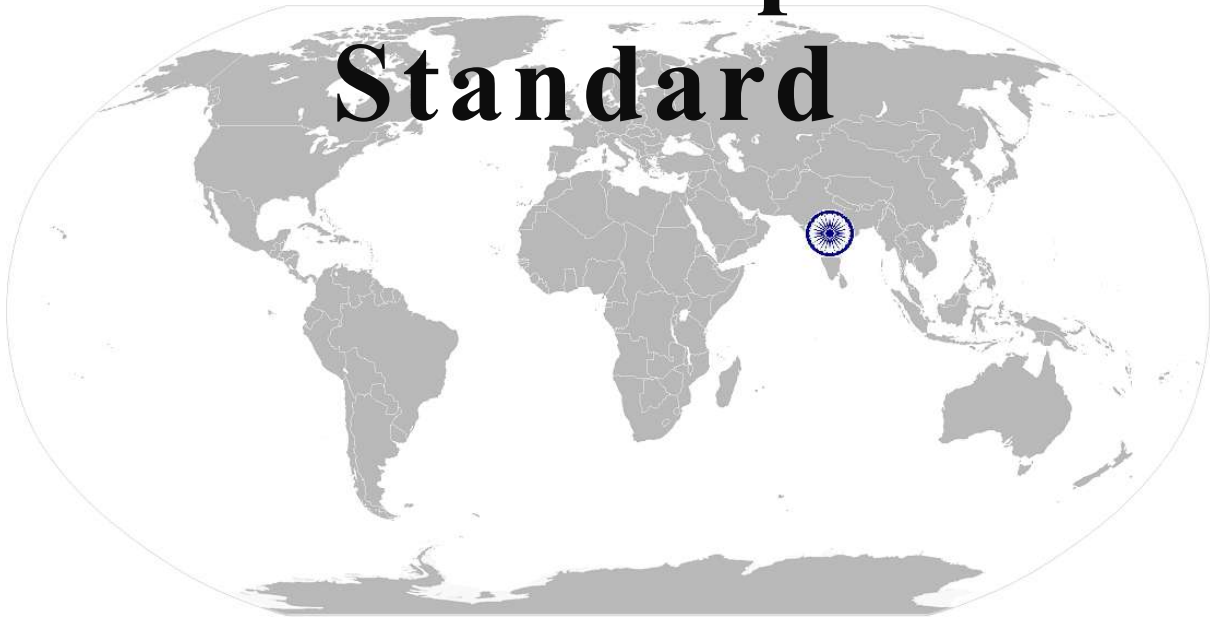
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NOS Code	AGR/N4820		
Credits (NSQF)	TBD	Version number	1.0
Industry	Agriculture & Allied	Drafted on	08/01/2015
Industry Sub-sector	Agriculture Allied Activity	Last reviewed on	08/01/2015
Occupation	Livestock Health Management	Next review date	08/01/2016

AGR/N4808: Assisting in veterinary extension services

National Occupational Standard



Overview

This unit deals with veterinary extension.

AGR/N4808: Assisting in veterinary extension services.

National Occupational Standard

Unit Code	AGR/N4808
Unit Title (Task)	Assisting in veterinary extension services.
Description	This OS unit is about assisting organization in conducting veterinary extension related activities.
Scope	<p>This unit/task covers:</p> <p>Planned promotion of approved technologies and practices for productivity enhancement and profitability of farming operation.</p>
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Promoting approved technology and best practices (including organic practices) in livestock farming, handling of animal products.	<p>To be competent, the individual on the job must be able to:</p> <p>PC1. understand and explain the applicability and benefit associated with common approved technology(s) / best practice(s) in the context of local situations, opportunities and constraints.</p> <p>PC2. give feedback on technology application in field and need for improvement (if any).</p> <p>PC3. organize extension events based on farmer convenience and seasonal suitability.</p>
Assist farmers on quality farm input selection and procurement.	<p>To be competent, the individual on the job must be able to:</p> <p>PC4. understand and explain quality parameters regarding various farm inputs.</p> <p>PC5. scout sources, plan and organize farmers for intelligent (Timely, quality and cost based) procurement of inputs.</p>
Assist in maintaining record of farmer meeting / farm school activities	<p>To be competent, the individual on the job must be able to:</p> <p>PC6. keep record that can help make farmer meeting and farm school activities 'targeted' and 'need based'</p>
Use of mobile and other technology for extension / client education	<p>To be competent, the individual on the job must be able to:</p> <p>PC7. Use modern communication devices, audio-visual aids to explain farmers / clients.</p>

AGR/N4808: Assisting in veterinary extension services.

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant organizational policy, products and services. KA2. supervisory structure.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. common popular production / processing technologies in livestock / poultry farming / product handling. KB2. common feed ingredients / fodder variety and their uses. KB3. organoleptic testing of feed. KB4. basic body scoring methods and selection of animals. KB5. basics of animal housing and farm infrastructure. KB6. use of communication devices.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. prepare a brief field program report. SA2. Fill data sheet and survey form.
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. read government / organizational guideline / manuals. SA4. keep abreast with the latest knowledge / technologies by reading brochures, pamphlets, and other related information sheets. SA5. read directives from government / organization / supervising veterinarians.
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules, etc. with co-workers SA7. explain farmers / clients on use of various technologies. SA8. give clear suggestions / guidance to farmers / clients.
	B. Professional Skills
	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make decisions related to suitability of any technology based on local

AGR/N4808: Assisting in veterinary extension services.

	situations.
	Plan and Organize
	The user/individual on the job needs to know and understand: SB2. how to plan for various extension events.
	Skills of using computer / electronic gadgets and other communication tools.
	The user/individual on the job needs to know and understand how to: SB3. use electronic communication / presentation tools.
	Analyzing and investigating
	The user/individual on the job needs to know and understand how to: SB4. investigate and analyze adopted technologies and provide feedback to supervising veterinarian / scientist.

NOS Version control

NOS Code	AGR/N4808		
Credits NSQF	TBD	Version number	1.0
Industry	Agriculture & Allied	Drafted on	09/12/2014
Industry Sub-sector	Agriculture Allied Activity	Last reviewed on	23/12/2014
Occupation	Livestock Health Management	Next review date	23/12/2015

AGR/N4810: Development program implementation and marketing in livestock sector.



National Occupational Standard

Overview

This unit deals with development program implementation and marketing in livestock sector

AGR/N4810: Development program implementation and marketing in livestock sector.

National Occupational Standard

Unit Code	AGR/N4810
Unit Title (Task)	Development program implementation and marketing in livestock sector.
Description	This OS unit is about assisting organization in implementing programs and projects in livestock sector (including one related to marketing of livestock products).
Scope	This unit/task covers : Basics of development program implementation such as empowerment / awareness creation, engagement with stakeholders and promotion of economic activities.
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Facilitation of implementation of government / private development programs.	To be competent, the individual on the job must be able to: PC1. promote awareness of programs and help in targeted beneficiary selection as envisioned in the promoted project / program. PC2. work with selected project beneficiaries in implementing activities as envisaged in promoted programs.
Engagement with farmers' institutions and local self-government (Panchayat)	To be competent, the individual on the job must be able to: PC3. attend and cooperate during meetings / programs of farmer's institutions / panchayats. PC4. inform / involve farmer leaders / panchayat functionaries in selection of program beneficiaries. PC5. facilitate organizations's / panchayat's endeavor to ensure convergence of development projects for synergy.
Facilitation of agri-livestock related economic activity of self-help groups	To be competent, the individual on the job must be able to: PC6. motivate and handhold formation of self-help groups. PC7. guide farmers on business options and basic economics of various livestock linked activities.
Facilitation of marketing of livestock farm inputs / products.	To be competent, the individual on the job must be able to: PC8. motivate farmers to produce for market and ensure aggregation, collective marketing of livestock products. PC9. provide market related e.g. prices etc. information to farmers. PC10. provide information on livestock farm inputs e.g. feed, fodder, supplements etc.


AGR/N4810: Development program implementation and marketing in livestock sector.

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant organizational policy and programs.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basics of development project management. KB2. guideline on self-help group / producer company formation and functioning. KB3. common livestock based business activities and economics thereof. KB4. basic understanding of common rural development programs of the government. KB5. basics of marketing and markets in the context of livestock products.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. prepare a brief report.
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. read government / organizational guideline / manuals. SA3. keep abreast with the latest information / knowledge on rural development livestock market by reading new papers, magazines etc. SA4. read directives from reporting government / private organization
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. discuss and explain benefit / outcome development programs. SA6. listen and comprehend farmer's problems and suggestions.
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand:

AGR/N4810: Development program implementation and marketing in livestock sector.

	SB1. how to plan activities.
	Skills of using computer / electronic gadgets and other communication tools.
	The user/individual on the job needs to know and understand how to:
	SB2. use electronic gadgets to promote programs / projects and engage with farmers / clients.
	Analyzing and investigating
	The user/individual on the job needs to know and understand how to:
	SB3. investigate and analyze opportunities and difficulties in program implementation.

NOS Version control

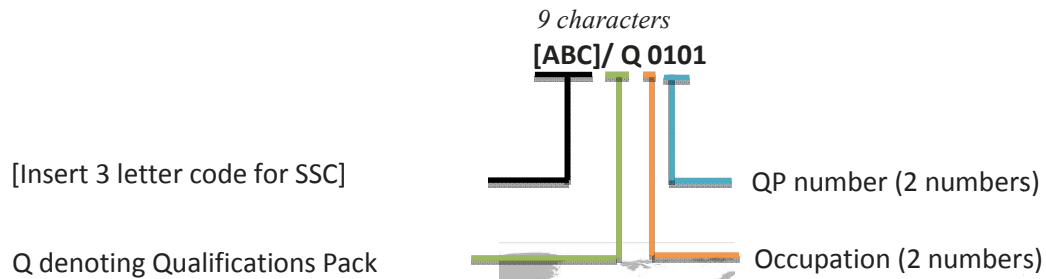


NOS Code	AGR/N4810		
Credits NSQF	TBD	Version number	1.0
Industry	Agriculture & Allied	Drafted on	09/12/2014
Industry Sub-sector	Agriculture Allied Activity	Last reviewed on	23/12/2014
Occupation	Livestock Health Management	Next review date	23/12/2015

Annexure

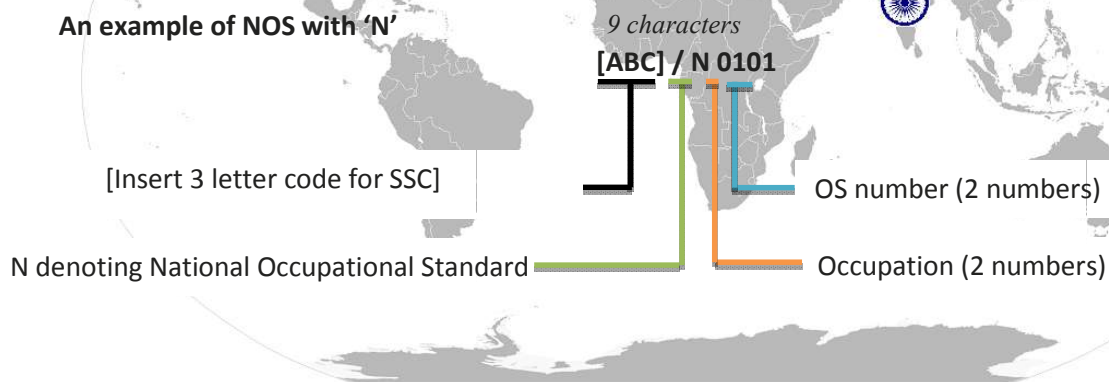
Nomenclature for QP and NOS

Qualifications Pack




Occupational Standard

An example of NOS with 'N'



Sub-sector	Range of Occupation numbers
Agriculture Crop Production	01 – 40
Agriculture Allied Activities	41 – 60
Forestry, Environment and Renewable Energy Management	61 - 70
Agriculture Industries	71 – 90
Generic Occupations	96 - 99

Sequence	Description	Example
Three letters	Industry name	AGR
Slash	/	/
Next letter	Whether QP or NOS	Q or N
Next two numbers	Occupation code	 01
Next two numbers	OS number	01

Note:

- The range of occupation numbers have been decided based on the number of existing and future occupations in a segment
- Occupation numbers from 91 – 95 have been intentionally left blank to accommodate any emerging segment in future.

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Artificial Insemination Technician
Qualification Pack AGR/Q4803
Sector Skill Council Agriculture

Guidelines for Assessment:

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 proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 50% in aggregate and 30% in each NOS.
6. The marks are allocated PC wise, however, every NOS will carry a weightage in the total marks allocated to the specific QP.

NOSs	Element	PCs	Total Mark (300)	Out Of	Marks Allocation	
					Theory	Skills Practical
1. AGR/N4820 : Implementation of cattle breeding services	Maintenance of database of good cattle breeders.	PC1. help farmers / clients with information on sources of good breeding animals.	100	5	5	0
		PC2. assist farmers / clients in selecting animal with proper breed and other characteristics for breeding purpose.		10	3	7
	PC3. detect heat in cattle.	10		3	7	
	PC4. use semen of appropriate quality and blood level.	5		3	2	
	PC5. follow protocols pertaining to biosecurity, safety, hygiene and welfare	10		5	5	
	PC6. follow the prescribed procedures in handling semen straw and in conducting insemination.	30		5	25	
	PC7. conduct artificial insemination in time.	5		5	0	
	Assistance to farmers on management of unproductive animals.	PC8. guide farmers / clients on appropriate feeding practices required for breeding animals e.g. mineral supplementation etc.		10	7	3
		PC9. guide farmers on maintaining optimum number of animals based on breeding plan and		5	3	2

		suggested performance goal.				
	Post insemination data recording and performance monitoring of breeding services	PC10. use field data collection tools (including electronic reader / mobile based data collection) as per given specifications.		5	1	4
		PC11. provide organization with standard required information such as semen used; time of heat, time of insemination, calf born etc. needed to monitor breeding services.		5	3	2
				100	43	57
8. AGR/ N4808 Assisting in veterinary extension services	Promoting approved technology and best practices (including organic practices) in livestock farming, handling of animal products.	PC1. understand and explain the applicability and benefit associated with common approved technology(s) / best practice(s) in the context of local situations, opportunities and constraints.		35	10	25
		PC2. give feedback on technology application in field and need for improvement (if any).		10	2	8
		PC3. organize extension events based on farmer convenience and seasonal suitability.		15	2	13
	Assist farmers on quality farm input selection and procurement.	PC4. understand and explain quality parameters regarding various farm inputs.	100	10	5	5
		PC5. scout sources, plan and organize farmers for intelligent (timely, quality and cost based) procurement of inputs.		10	3	7
	Assist in maintaining record of farmer meeting / farm school activities	PC6. keep record that can help make farmer meeting and farm school activities 'targeted' and 'need based'		10	2	8
	Use of mobile and other technology for extension / client education	PC7. Use modern communication devices, audio-visual aids to explain farmers / clients.		10	1	9
				100	25	75
10. AGR/ N4810 Development program implementation and marketing in livestock sector	Facilitation of implementation of government / private development programs.	PC1. promote awareness of programs and help in targeted beneficiary selection as envisioned in the promoted project / program.	100	10	5	5
		PC2. work with selected project beneficiaries in implementing		10	2	8

	activities as envisaged in promoted programs.			
Engagement with farmers' institutions and local self-government (Panchayat)	PC3. attend and cooperate during meetings / programs of farmer's institutions / panchayats.	10	2	8
	PC4. inform / involve farmer leaders / panchayat functionaries in selection of program beneficiaries.	10	2	8
	PC5. facilitate organizations's / panchayat's endeavor to ensure convergence of development projects for synergy.	5	5	0
Facilitation of agri-livestock related economic activity of self-help groups	PC6. motivate and handhold formation of self-help groups.	15	5	10
	PC7. guide farmers on business options and basic economics of various livestock linked activities.	15	6	9
Facilitation of marketing of farm inputs / livestock farm products.	PC8. motivate farmers to produce for market and ensure aggregation, collective marketing of livestock products.	10	5	5
	PC9. provide market related e.g. prices etc. information to farmers.	7	2	5
	PC10. provide information on livestock farm inputs e.g. feed, fodder, supplements etc.	8	8	0
		100	42	58