









# Artificial Insemination Technician

Options: Program implementation and livestock marketing

QP Code: AGR/Q4803

Version: 4.0

NSQF Level: 4

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### AGR/Q4803: Artificial Insemination Technician

### **Brief Job Description**

An Artificial Insemination Technician (AI Technician) also known as Multipurpose Artificial Insemination Technician in rural India (MAITRIs), Gopalmitra, Pranibandhu, 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 the direct supervision and monitoring of any registered development / private / producer-led agency. An Artificial Insemination Technician needs to work under the direct or distant supervision of a registered veterinarian while offering services notified as Minor Veterinary Services under the provision of the Indian Veterinary Council Act (No.52 of 1984).

#### **Personal Attributes**

An Al Technician should have a mind for science, belongingness to the community, compassion for animals, good leadership, communication and observation skills. The Individual should be physically strong and have manual dexterity

### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. AGR/N4820: Implementation of cattle Breeding Services
- 2. AGR/N4829: Provide veterinary first-aid (AIT)
- 3. AGR/N4808: Assist in veterinary extension services
- 4. DGT/VSQ/N0102: Employability Skills (60 Hours)

### **Options**(*Not mandatory*):

Option: Program implementation and livestock marketing

This OS unit is about assisting organizations in implementing programs and projects in the livestock sector (including one related to the marketing of livestock products)

1. AGR/N4810: Facilitate program implementation and marketing in the livestock sector

### **Qualification Pack (QP) Parameters**

ector	Agriculture
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Sub-Sector	Animal Husbandry
Occupation	Livestock Health Management
Country	India
NSQF Level	4
Credits	14
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6121.0500
Minimum Educational Qualification & Experience	12th grade Pass (or equivalent) OR 10th grade pass with 3 Years of experience relevant experience in Agriculture and allied sectors or as pashu sakho/ Gopal Mitra/MAITRIS OR Previous relevant Qualification of NSQF Level (3.5) with 1.5 years of experience relevant experience in Agriculture and allied sectors or as pashu sakho/ Gopal Mitra/MAITRIS OR Previous relevant Qualification of NSQF Level (3) with 3 Years of experience relevant experience in Agriculture and allied sectors or as pashu sakho/ Gopal Mitra/MAITRIS
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	NA
Next Review Date	26/11/2027
NSQC Approval Date	26/11/2024
Version	4.0
Reference code on NQR	QG-04-AG-03414-2024-V2-ASCI
NQR Version	2.0









### AGR/N4820: Implementation of cattle Breeding Services

### **Description**

This OS unit is about assisting organization in implementing programs related to cattle breeding.

### Scope

The scope covers the following:

- Maintaining database of good cattle breeders
- Assistance to farmers in quality cattle selection/purchase.
- Animal identification and data recording
- Conducting artificial insemination and pregnancy diagnosis
- Assistance to farmers on the management of unproductive animals
- Post insemination data recording and performance monitoring of breeding services
- Essential preventive health support to breeding animals

#### **Elements and Performance Criteria**

### Maintaining database of good cattle breeders

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

**PC2.** assist farmers/clients in selecting animals with the proper breed and other characteristics for breeding purposes

### Animal identification and data recording

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

- **PC3.** restrain the animal appropriately
- **PC4.** perform tagging of animals as per standard protocol
- **PC5.** use field data collection tools (including electronic/mobile mobile-based data collection) as per the given specifications

### Conducting artificial insemination and pregnancy diagnosis

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

- **PC6.** recognize heat in cattle
- **PC7.** use semen of appropriate quality and blood level
- **PC8.** follow protocols pertaining to biosecurity, safety, hygiene, and welfare
- **PC9.** follow the prescribed procedures in handling semen straw, and in conducting insemination
- PC10. practice artificial insemination in time
- PC11. follow-up cases and conduct pregnancy diagnosis

#### Assistance to farmers on the management of unproductive animals

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









- PC12. explain to farmers/clients the appropriate feeding practices required for breeding animals, e.g.
   Mineral supplementation, etc.
- **PC13.** guide farmers on maintaining an optimum number of animals based on breeding plan and suggest performance goal

### Post insemination data recording and performance monitoring of breeding services

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

- **PC14.** use field data collection tools (including electronic reader/mobile-based data collection) as per given specifications
- **PC15.** provide organization with standard required information such as semen used; time of heat, time of insemination, calf born, etc., needed to monitor breeding services

### Essential preventive health support to breeding animals

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

- **PC16.** demonstrate a high rate of voluntary compliance with bio-security norms within a farm
- **PC17.** evaluate procedure for procurement/infrastructure for storage, etc.and use vaccines from appropriate sources only
- **PC18.** ensure cold chain and compliance with other guidelines during transport of vaccines to farmer's/clients' place and point of use
- **PC19.** rotate vaccine stock in hand so that the oldest vaccines are used first, ensuring that no vaccine is used after the expiration date
- **PC20.** comply with all scientific guidelines related to vaccine administration procedure, e.g., use of appropriate dose, use of separate syringe for different vaccines, etc.
- **PC21.** ensure the record of a given vaccine and administration-related information (individual/herd level) along with batch numbers etc., as per the given format
- **PC22.** timely report vaccine failure to appropriate authority as per format
- **PC23.** ensure herd coverage and continuity of the vaccination program
- **PC24.** describe preventive de-worming and ecto parasite control as per the SOP approved by the organization

### Providing assistance in the management of bull stations/ semen production centres

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

- **PC25.** undertake the management of breeding bulls as per instructions
- **PC26.** prepare animals and assist in semen collection
- **PC27.** assist in the routine maintenance of various common equipment in semen production centres
- **PC28.** supervise storage, handling and distribution of semen straws

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Different breeds of cattle and buffaloes and reproduction parameters
- **KU2.** basic anatomy of reproductive organs (Male / Female) and their functions
- **KU3.** basic of reproductive physiology, e.g., estrous cycle, signs, etc.
- **KU4.** puberty, maturity, calving interval (Service period, dry period and inter-calving period)









- **KU5.** selective breeding/cross-breeding
- **KU6.** basics of semen collection, evaluation, processing and preservation
- **KU7.** semen straw handling procedure and safety requirement in the handling of liquid nitrogen
- **KU8.** protocols related to bio-security, hygiene, safety, and animal welfare during artificial insemination
- **KU9.** technical procedure of artificial insemination
- **KU10.** procedure for pregnancy diagnosis
- **KU11.** methods of calculating conception rate and factors affecting conception rate
- KU12. Tagging, record keeping and reporting of breeding-related activities as per SOP
- KU13. Methods of non-surgical castration
- KU14. Infertility issues in dairy cattle
- KU15. basic management of breeding bulls
- **KU16.** routine maintenance of standard equipment in semen stations
- **KU17.** General preventive care of breeding animals, including vaccination

### **Generic Skills (GS)**

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

- **GS1.** prepare a brief case report
- **GS2.** fill monitoring related forms
- **GS3.** follow organizational / state breeding policy
- **GS4.** read government / organizational guideline / manuals
- GS5. follow information and colour code printed in semen straw
- **GS6.** read manufacturer guidelines of various common equipment used in breeding services
- **GS7.** read directives from government/organization
- **GS8.** discuss task list, schedule etc. with co workers
- **GS9.** explain farmers / clients on artificial insemination procedure
- **GS10.** give clear suggestion / guidance to farmers / clients
- **GS11.** make decisions related to time, appropriate application of artificial insemination technologies
- **GS12.** use electronic/mobile tools (where available) to record and send breeding-related data to servers
- **GS13.** investigate and analyze in relation to difficulties, failures









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintaining database of good cattle breeders	2	2	-	2
<b>PC1.</b> help farmers/clients with information on sources of good breeding animals	-	-	-	-
Assistance to farmers in quality cattle selection/purchase	5	3	-	2
<b>PC2.</b> assist farmers/clients in selecting animals with the proper breed and other characteristics for breeding purposes	-	-	-	-
Animal identification and data recording	4	8	-	-
PC3. restrain the animal appropriately	-	-	-	-
<b>PC4.</b> perform tagging of animals as per standard protocol	-	-	-	-
<b>PC5.</b> use field data collection tools (including electronic/mobile mobile-based data collection) as per the given specifications	-	-	-	-
Conducting artificial insemination and pregnancy diagnosis	10	20	-	5
PC6. recognize heat in cattle	-	-	-	-
PC7. use semen of appropriate quality and blood level	-	-	-	-
<b>PC8.</b> follow protocols pertaining to biosecurity, safety, hygiene, and welfare	-	-	-	-
<b>PC9.</b> follow the prescribed procedures in handling semen straw, and in conducting insemination	-	-	-	-
PC10. practice artificial insemination in time	-	-	-	-
PC11. follow-up cases and conduct pregnancy diagnosis	-	-	-	-
Assistance to farmers on the management of unproductive animals	2	-	-	2









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<ul> <li>PC12.</li> <li>explain to farmers/clients the appropriate feeding practices required for breeding animals, e.g.</li> <li>Mineral supplementation, etc.</li> </ul>	-	-	-	-
<b>PC13.</b> guide farmers on maintaining an optimum number of animals based on breeding plan and suggest performance goal	-	-	-	-
Post insemination data recording and performance monitoring of breeding services	-	5	-	2
<b>PC14.</b> use field data collection tools (including electronic reader/mobile-based data collection) as per given specifications	-	-	-	-
<b>PC15.</b> provide organization with standard required information such as semen used; time of heat, time of insemination, calf born, etc., needed to monitor breeding services	-	-	-	-
Essential preventive health support to breeding animals	5	8	-	3
<b>PC16.</b> demonstrate a high rate of voluntary compliance with bio-security norms within a farm	-	-	-	-
<b>PC17.</b> evaluate procedure for procurement/infrastructure for storage, etc.and use vaccines from appropriate sources only	-	-	-	-
<b>PC18.</b> ensure cold chain and compliance with other guidelines during transport of vaccines to farmer's/clients' place and point of use	-	-	-	-
<b>PC19.</b> rotate vaccine stock in hand so that the oldest vaccines are used first, ensuring that no vaccine is used after the expiration date	-	-	-	-
<b>PC20.</b> comply with all scientific guidelines related to vaccine administration procedure, e.g., use of appropriate dose, use of separate syringe for different vaccines, etc.	-	-	-	-
<b>PC21.</b> ensure the record of a given vaccine and administration-related information (individual/herd level) along with batch numbers etc., as per the given format	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> timely report vaccine failure to appropriate authority as per format	-	-	-	-
<b>PC23.</b> ensure herd coverage and continuity of the vaccination program	-	-	-	-
<b>PC24.</b> describe preventive de-worming and ecto parasite control as per the SOP approved by the organization	-	-	-	-
Providing assistance in the management of bull stations/ semen production centres	3	5	-	2
<b>PC25.</b> undertake the management of breeding bulls as per instructions	-	-	-	-
PC26. prepare animals and assist in semen collection	-	-	-	-
<b>PC27.</b> assist in the routine maintenance of various common equipment in semen production centres	-	-	-	-
PC28. supervise storage, handling and distribution of semen straws	-	-	-	-
NOS Total	31	51	-	18









# **National Occupational Standards (NOS) Parameters**

NOS Code	AGR/N4820
NOS Name	Implementation of cattle Breeding Services
Sector	Agriculture
Sub-Sector	Animal Husbandry
Occupation	Livestock Health Management
NSQF Level	4
Credits	5
Version	3.0
Last Reviewed Date	26/11/2024
Next Review Date	26/11/2027
NSQC Clearance Date	26/11/2024









### AGR/N4829: Provide veterinary first-aid (AIT)

### **Description**

This OS unit is about veterinary first-aid

### Scope

The scope covers the following:

- Handling of non-infectious conditions like indigestion, anorexia, constipation, tympani, impaction, diarrhea etc.
- Immediate support to accidental situations like poisoning, sunstroke, electrocution, burn injuries, etc
- Handling of superficial wounds and trauma
- Support in reproductive emergencies

#### **Elements and Performance Criteria**

Handling of non-infectious conditions like indigestion, anorexia, constipation, tympani, impaction, diarrhea etc.

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

**PC1.** Identify the non-infectious condition and use commonly suggested medications / follow precautions as per the manual prepared by the supervisor

Provide immediate support to accidental situations like poisoning, sunstroke, electrocution, burn injuries, etc.

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

- **PC2.** identify the cause of the accident from the symptoms
- **PC3.** recognize the severity of the accident and suggest for consultation with a veterinarian
- **PC4.** provide primary/immediate care as specified for each type of accident as per SOP

Handling of superficial wounds and trauma

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

PC5. clean and protect the wound and stop bleeding

Provide support in reproductive emergencies

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

- **PC6.** take needed precautions at the time of calving and use the naval kit for disinfection of naval cord
- **PC7.** recognize signs of dystocia early to seek appropriate help from a supervisor/veterinarian
- **PC8.** provide resuscitation to newborn calves
- **PC9.** carry out aseptic handling and protection of the prolapsed organ(s) before the arrival of a veterinarian

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:









- KU1. relevant organizational policy on health event reporting/record keeping
- **KU2.** relevant supervisory structure
- **KU3.** basics of emergency conditions in animals along with pre-disposing factors
- **KU4.** the usage of first aid kit
- **KU5.** nature of wounds vis-a-vis procedure of cleaning and protection
- **KU6.** uses and doses and safety precautions of common medications in emergencies (as per manual prepared by supervisor)
- **KU7.** common approaches in handling poisoning and natural calamities
- **KU8.** care that is to be taken at the time of calving, post-calving and handling of common reproductive emergencies

### **Generic Skills (GS)**

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

- **GS1.** fill data sheet/application for recording emergency events
- **GS2.** read government/organizational guidelines/manuals
- GS3. read directives from government/organization/ supervising veterinarians
- GS4. discuss task lists, schedules, etc. with co-workers
- GS5. explain farmers / clients on presented symptoms/emergency conditions
- **GS6.** give clear suggestions/guidance to farmers/clients
- **GS7.** make decisions related to the use of emergency medication out of permitted assortments
- **GS8.** decide appropriate approach and best way to handle an injured animal or one suffering from reproductive emergencies
- **GS9.** relate the emergency to immediate events on the surrounding environment









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Handling of non-infectious conditions like indigestion, anorexia, constipation, tympani, impaction, diarrhea etc.	8	5	-	5
<b>PC1.</b> Identify the non-infectious condition and use commonly suggested medications / follow precautions as per the manual prepared by the supervisor	-	-	-	-
Provide immediate support to accidental situations like poisoning, sunstroke, electrocution, burn injuries, etc.	8	5	-	5
<b>PC2.</b> identify the cause of the accident from the symptoms	-	-	-	-
<b>PC3.</b> recognize the severity of the accident and suggest for consultation with a veterinarian	-	-	-	-
<b>PC4.</b> provide primary/immediate care as specified for each type of accident as per SOP	-	-	-	-
Handling of superficial wounds and trauma	7	10	-	2
<b>PC5.</b> clean and protect the wound and stop bleeding	-	-	-	-
Provide support in reproductive emergencies	15	20	-	10
<b>PC6.</b> take needed precautions at the time of calving and use the naval kit for disinfection of naval cord	-	-	-	-
<b>PC7.</b> recognize signs of dystocia early to seek appropriate help from a supervisor/veterinarian	-	-	-	-
PC8. provide resuscitation to newborn calves	-	-	-	-
<b>PC9.</b> carry out aseptic handling and protection of the prolapsed organ(s) before the arrival of a veterinarian	-	-	-	-
NOS Total	38	40	-	22









# **National Occupational Standards (NOS) Parameters**

NOS Code	AGR/N4829
NOS Name	Provide veterinary first-aid (AIT)
Sector	Agriculture
Sub-Sector	
Occupation	Livestock Health Management
NSQF Level	4
Credits	1
Version	1.0
Last Reviewed Date	26/11/2024
Next Review Date	26/11/2027
NSQC Clearance Date	26/11/2024









### AGR/N4808: Assist in veterinary extension services

### **Description**

This OS unit is about assisting organizations in conducting veterinary extension-related activities.

### Scope

The scope covers the following:

- promoting approved technology and best practices (viz housing, feeding, breeding including organic practices) in livestock farming, handling animal products
- assist farmers on quality farm input selection and procurement
- engagement with community and sustainable delivery of services
- use of mobile and other technology for extension/client education

### **Elements and Performance Criteria**

Promoting approved technology and best practices in housing, feeding, breeding and other related areas in livestock farming and handling of animal products

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

- **PC1.** explain the applicability and benefit associated with common approved technology(s) / best practice(s) in the context of local situations, opportunities, and constraints
- **PC2.** give feedback on technology application in the field and need for improvement
- **PC3.** organize extension events based on farmer convenience and seasonal suitability

Assist farmers on quality farm input selection and procurement

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

- **PC4.** explain quality parameters regarding various farm inputs
- **PC5.** identify sources, plan and organize farmers for intelligent (timely, quality, and appropriate cost- based) procurement of inputs

Engagement with community and delivery of sustainable services

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

- PC6. recognize how gender and other social factors impact management of animals
- **PC7.** follow various related development programs ongoing within the community and contribute meaningfully to such programs
- **PC8.** prepare and support community and individual farmers to face disasters
- **PC9.** apply basic principles of management needed for sustainable delivery of services within a community
- **PC10.** network with various people and associations within profession, community and in livestock business

Use of mobile and other technology for extension/client education

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

PC11. use modern communication devices, audio-visual aids to explain farmers/clients









### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** basic extension concepts
- **KU2.** Production cycle of farm animals
- **KU3.** basics of breeding and selection of animals. (with brief introduction to state breeding policy)
- **KU4.** prerequisite for setting up of a livestock farm /related business
- **KU5.** basics of animal housing and farm infrastructure (Focusing on smallholder)
- **KU6.** sanitation and hygiene within farm premises and waste disposal
- **KU7.** water and land use efficiency
- **KU8.** concept of organic production and natural livestock farming
- **KU9.** common popular production/processing technologies in livestock/poultry farming / product handling. (Appropriate to the region/state)
- KU10. common feed ingredients/fodder variety and their uses/fodder preservation and enrichment
- **KU11.** importance of mineral mixture and feed supplements in animal ration
- **KU12.** basics of feeding management including ration balancing
- **KU13.** handling of infertility focusing on nutritional approach
- **KU14.** basics of managing livestock business
- KU15. clean milk production
- **KU16.** organoleptic testing of feed
- **KU17.** preparing for disasters and dos and don'ts in the event of disasters
- **KU18.** government development schemes for livestock farmers (with respect to the local area)
- **KU19.** use of communication devices and relevant mobile applications
- **KU20.** importance of data and use of data collection tool (including electronic)

### **Generic Skills (GS)**

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

- **GS1.** prepare a brief field program report
- GS2. fill datasheet and survey form
- **GS3.** read government/organizational guideline/manuals
- **GS4.** keep abreast with the latest knowledge/technologies by reading brochures, pamphlets, and other related information sheet
- **GS5.** discuss task lists, schedules, etc. with co-workers
- **GS6.** explain farmers/clients on the use of various technologies
- **GS7.** give clear suggestions/guidance to farmers/clients
- **GS8.** make decisions related to the suitability of any technology based on local situations
- **GS9.** plan for various extension events
- **GS10.** use electronic communication/presentation tools









**GS11.** investigate and analyze adopted technologies and provide feedback to supervising veterinarian/scientist









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Promoting approved technology and best practices in housing, feeding, breeding and other related areas in livestock farming and handling of animal products	30	18	-	2
<b>PC1.</b> explain the applicability and benefit associated with common approved technology(s) / best practice(s) in the context of local situations, opportunities, and constraints	-	-	-	-
<b>PC2.</b> give feedback on technology application in the field and need for improvement	-	-	-	-
<b>PC3.</b> organize extension events based on farmer convenience and seasonal suitability	-	-	-	-
Assist farmers on quality farm input selection and procurement	10	10	-	2
<b>PC4.</b> explain quality parameters regarding various farm inputs	-	-	-	-
<b>PC5.</b> identify sources, plan and organize farmers for intelligent (timely, quality, and appropriate cost- based) procurement of inputs	-	-	-	-
Engagement with community and delivery of sustainable services	15	-	-	5
<b>PC6.</b> recognize how gender and other social factors impact management of animals	-	-	-	-
<b>PC7.</b> follow various related development programs ongoing within the community and contribute meaningfully to such programs	-	-	-	-
<b>PC8.</b> prepare and support community and individual farmers to face disasters	-	-	-	-
<b>PC9.</b> apply basic principles of management needed for sustainable delivery of services within a community	-	-	-	-
<b>PC10.</b> network with various people and associations within profession, community and in livestock business	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Use of mobile and other technology for extension/client education	-	5	-	3
<b>PC11.</b> use modern communication devices, audiovisual aids to explain farmers/clients	-	-	-	-
NOS Total	55	33	-	12









# **National Occupational Standards (NOS) Parameters**

NOS Code	AGR/N4808
NOS Name	Assist in veterinary extension services
Sector	Agriculture
Sub-Sector	Animal Husbandry
Occupation	Livestock Health Management
NSQF Level	4
Credits	2
Version	3.0
Last Reviewed Date	26/11/2024
Next Review Date	26/11/2027
NSQC Clearance Date	26/11/2024









### **DGT/VSQ/N0102: Employability Skills (60 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
- Career Development & Goal Setting
- 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.** identify employability skills required for jobs in various industries
- PC2. identify and explore learning and employability portals

### Constitutional values - Citizenship

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

- **PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4. follow environmentally sustainable practices

### Becoming a Professional in the 21st Century

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

- **PC5.** recognize the significance of 21st Century Skills for employment
- **PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

### Basic English Skills

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









- **PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- **PC9.** write short messages, notes, letters, e-mails etc. in English

### Career Development & Goal Setting

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

- **PC10.** understand the difference between job and career
- **PC11.** prepare a career development plan with short- and long-term goals, based on aptitude *Communication Skills*

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

- **PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13. work collaboratively with others in a team

### **Diversity & Inclusion**

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

- PC14. communicate and behave appropriately with all genders and PwD
- **PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act *Financial and Legal Literacy*

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

- **PC16.** select financial institutions, products and services as per requirement
- **PC17.** carry out offline and online financial transactions, safely and securely
- **PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- **PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation *Essential Digital Skills*

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

- **PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22. use basic features of word processor, spreadsheets, and presentations

### Entrepreneurship

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

- **PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

#### **Customer Service**

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

- **PC26.** identify different types of customers
- **PC27.** identify and respond to customer requests and needs in a professional manner.









**PC28.** follow appropriate hygiene and grooming standards

### Getting ready for apprenticeship & Jobs

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

- PC29. create a professional Curriculum vitae (Résumé)
- **PC30.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC31.** apply to identified job openings using offline /online methods as per requirement
- **PC32.** answer questions politely, with clarity and confidence, during recruitment and selection
- **PC33.** identify apprenticeship opportunities and register for it as per guidelines and requirements

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** need for employability skills and different learning and employability related portals
- **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 English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- **KU6.** importance of career development and setting long- and short-term goals
- **KU7.** about effective communication
- KU8. POSH Act
- **KU9.** Gender sensitivity and inclusivity
- **KU10.** different types of financial institutes, products, and services
- **KU11.** how to compute income and expenditure
- **KU12.** importance of maintaining safety and security in offline and online financial transactions
- KU13. different legal rights and laws
- **KU14.** different types of digital devices and the procedure to operate them safely and securely
- **KU15.** how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.
- **KU16.** how to identify business opportunities
- **KU17.** types and needs of customers
- **KU18.** how to apply for a job and prepare for an interview
- **KU19.** apprenticeship scheme and the process of registering on apprenticeship portal

### **Generic Skills (GS)**

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

- **GS1.** read and write different types of documents/instructions/correspondence
- GS2. communicate effectively using appropriate language in formal and informal settings









**GS3.** behave politely and appropriately with all

**GS4.** how to work in a virtual mode

**GS5.** perform calculations efficiently

**GS6.** solve problems effectively

**GS7.** pay attention to details

**GS8.** manage time efficiently

GS9. maintain hygiene and sanitization to avoid infection









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
<b>PC1.</b> identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
Constitutional values - Citizenship	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	2	4	-	-
<b>PC5.</b> recognize the significance of 21st Century Skills for employment	-	-	-	-
<b>PC6.</b> practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
Basic English Skills	2	3	-	-
<b>PC7.</b> use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
<b>PC8.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
<b>PC9.</b> write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	1	2	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> understand the difference between job and career	-	-	-	-
<b>PC11.</b> prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
Communication Skills	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	1	2	-	-
<b>PC14.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	2	3	-	-
<b>PC16.</b> select financial institutions, products and services as per requirement	-	-	-	-
<b>PC17.</b> carry out offline and online financial transactions, safely and securely	-	-	-	-
<b>PC18.</b> identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	3	4	-	-
<b>PC20.</b> operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
<b>PC21.</b> use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
<b>PC22.</b> use basic features of word processor, spreadsheets, and presentations	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Entrepreneurship	2	3	-	-
<b>PC23.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
<b>PC24.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
<b>PC25.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	1	2	-	-
PC26. identify different types of customers	-	-	-	-
<b>PC27.</b> identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
<b>PC30.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
<b>PC31.</b> apply to identified job openings using offline /online methods as per requirement	-	-	-	-
<b>PC32.</b> answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
<b>PC33.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-









# **National Occupational Standards (NOS) Parameters**

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	18/02/2025
Next Review Date	18/02/2028
NSQC Clearance Date	18/02/2025









# AGR/N4810: Facilitate program implementation and marketing in the livestock sector

### **Description**

This OS unit is about assisting organizations in implementing programs and projects in the livestock sector (including one related to the marketing of livestock products).

### Scope

The scope covers the following:

- Facilitate implementation of government / private development programs including livestock insurance
- Engagement with 'farmers' institutions and local self-government (Panchayat)
- Facilitate agri-livestock related economic activity of self-help groups
- Facilitate marketing of livestock farm inputs / products

### **Elements and Performance Criteria**

Facilitate implementation of government / private development programs including livestock insurance

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

- **PC1.** promote awareness of programs and help in targeted beneficiary selection as envisioned in the project/program
- **PC2.** work with selected project beneficiaries in implementing activities as envisaged in promoted programs
- **PC3.** practice ear tagging in livestock and register animal for insurance

Engagement with 'farmers' institutions and local self-government (Panchayat)

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

- **PC4.** attend and support during meeting /programs of farmer's institutions/panchayats
- **PC5.** inform/involve farmer leaders/panchayat functionaries in the selection of program beneficiaries
- **PC6.** facilitate organization's panchayat endeavor to ensure convergence of development projects for synergy

Facilitate agri-livestock related economic activity of self-help groups

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

- **PC7.** support and handhold formation of self-help groups
- **PC8.** guide farmers on business options and basic economics of various livestock-linked activities

Facilitate marketing of livestock farm inputs / products

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

- **PC9.** support farmers to produce for market and ensure aggregation, collective marketing of livestock products
- **PC10.** deliver market-related e.g. prices, etc. information to farmers
- **PC11.** promote use of quality livestock farm inputs









### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** relevant organizational policy and programs
- KU2. sustainable development and goal for same
- KU3. basics of project development and management
- **KU4.** guideline on self-help group/producer company formation and functioning
- KU5. common livestock-based business activities and economics thereof
- KU6. benefits of local area livestock /rural development programs
- KU7. concept of livestock insurance and introduction to IRDA guidelines
- **KU8.** basics of marketing and markets in the context of livestock products

### **Generic Skills (GS)**

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

- **GS1.** prepare a brief report
- **GS2.** read government/organizational guideline/manuals
- **GS3.** keep abreast with the latest information/knowledge on the rural development livestock market by reading newspapers, magazines, etc.
- **GS4.** discuss and explain benefit/outcome development programs
- **GS5.** listen and comprehend 'farmer's problems and suggestions
- **GS6.** plan activities
- **GS7.** use electronic gadgets to promote programs/projects and engage with farmers/clients
- **GS8.** investigate and analyze opportunities and difficulties in program implementation









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Facilitate implementation of government / private development programs including livestock insurance	10	13	-	7
<b>PC1.</b> promote awareness of programs and help in targeted beneficiary selection as envisioned in the project/program	-	-	-	-
<b>PC2.</b> work with selected project beneficiaries in implementing activities as envisaged in promoted programs	-	-	-	-
<b>PC3.</b> practice ear tagging in livestock and register animal for insurance	-	-	-	-
Engagement with 'farmers' institutions and local self- government (Panchayat)	5	10	-	5
<b>PC4.</b> attend and support during meeting /programs of farmer's institutions/panchayats	-	-	-	-
<b>PC5.</b> inform/involve farmer leaders/panchayat functionaries in the selection of program beneficiaries	-	-	-	-
<b>PC6.</b> facilitate organization's panchayat endeavor to ensure convergence of development projects for synergy	-	-	-	-
Facilitate agri-livestock related economic activity of self-help groups	10	5	-	10
<b>PC7.</b> support and handhold formation of self-help groups	-	-	-	-
<b>PC8.</b> guide farmers on business options and basic economics of various livestock-linked activities	-	-	-	-
Facilitate marketing of livestock farm inputs / products	5	12	-	8
<b>PC9.</b> support farmers to produce for market and ensure aggregation, collective marketing of livestock products	-	-	-	-
<b>PC10.</b> deliver market-related e.g. prices, etc. information to farmers	_	-	_	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. promote use of quality livestock farm inputs	-	-	-	-
NOS Total	30	40	-	30









### **National Occupational Standards (NOS) Parameters**

NOS Code	AGR/N4810
NOS Name	Facilitate program implementation and marketing in the livestock sector
Sector	Agriculture
Sub-Sector	Animal Husbandry
Occupation	Livestock Health Management
NSQF Level	4
Credits	1
Version	4.0
Last Reviewed Date	26/11/2024
Next Review Date	26/11/2027
NSQC Clearance Date	26/11/2024

### 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 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. 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 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 70% 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: 70

(**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/N4820.Implementation of cattle Breeding Services	31	51	-	18	100	50
AGR/N4829.Provide veterinary first-aid (AIT)	38	40	-	22	100	20
AGR/N4808.Assist in veterinary extension services	55	33	-	12	100	25
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	5
Total	144	154	-	52	350	100

### Optional: 1 Program implementation and livestock marketing

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AGR/N4810.Facilitate program implementation and marketing in the livestock sector	30	40	-	30	100	25
Total	30	40	-	30	100	25









# **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.