



Model Curriculum

QP Name: Zoo Animal Keeper

QP Code: AGR/Q4604

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 1.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower,
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Training Parameters

| | |
|---|--|
| Sector | Agriculture and Allied |
| Sub-Sector | Animal Husbandry |
| Occupation | Captive and Small Animals Management |
| Country | India |
| NSQF Level | 4 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/6129.9900 |
| Minimum Educational Qualification and Experience | Minimum Educational Qualification: 12th grade pass OR Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass plus 2-year NTC OR 10th grade pass plus 1-year NTC plus 1 year NAC OR 8th pass plus 2-year NTC plus 1-Year NAC plus CITS OR 10th grade pass and pursuing continuous schooling OR 10th Grade Pass with 2-year relevant experience OR Previous relevant Qualification of NSQF Level 3.0 with minimum education as 8th Grade pass with 3- year relevant experience OR Previous relevant Qualification of NSQF Level 3.5 with 1.5- year relevant experience |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 18 Years |
| Last Reviewed On | 20/11/2020 |
| Next Review Date | 20/11/2025 |
| NSQC Approval Date | 20/11/2020 |
| QP Version | 2.0 |

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|--|------------|
| Model Curriculum Creation Date | 20/11/2020 |
| Model Curriculum Valid Up to Date | 20/11/2025 |
| Model Curriculum Version | 1.0 |
| Minimum Duration of the Course | 390 Hours |
| Maximum Duration of the Course | 390 Hours |

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Identify the characteristics of different types of zoo animals.
- Assess the behaviour of different types of zoo animals
- House different types of zoo animals in their habitat.
- Feed zoo animals as per their food habits and nutritional requirements.
- Groom the zoo animals
- Assist a veterinarian in maintaining health of the zoo animals.
- Communicate effectively with the stakeholders.
- Follow occupational health & safety, hygiene & sanitation and quality standards.
- Practice inclusivity at the workplace.
- Optimal utilisation of the resources.
- Demonstrate adherence to the best practices related to animal welfare.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|-----------------|--------------------|--|--|----------------|
| Bridge Module: | 05:00 | 05:00 | 0:00 | 0:00 | 10:00 |
| Module 1: Introduction to the zoo and the job role | 05:00 | 05:00 | 0:00 | 0:00 | 10:00 |
| AGR/N4613: Assess the characteristics and behaviour of the zoo animals NOS Version No. 1.0 NSQF Level 4 | 30:00 | 20:00 | 0:00 | 0:00 | 50:00 |
| Module 2: Interpret the characteristics of the zoo animals | 15:00 | 10:00 | 0:00 | 0:00 | 25:00 |
| Module 3: Interpret the behavior of the zoo animals | 15:00 | 10:00 | 0:00 | 0:00 | 25:00 |
| AGR/N4614: Manage animals and their habitat NOS Version No. 1.0 NSQF Level 4 | 40:00 | 80:00 | 0:00 | 0:00 | 120:00 |
| Module 4: Manage animals' habitat | 15:00 | 25:00 | 0:00 | 0:00 | 40:00 |
| Module 5: Feed the animals | 15:00 | 25:00 | 0:00 | 0:00 | 40:00 |
| Module 6: Groom and exercise the animals | 10:00 | 30:00 | 0:00 | 0:00 | 40:00 |
| AGR/N4615: Assist in maintaining health of the animals NOS Version No. 1.0 NSQF Level 4 | 40:00 | 50:00 | 0:00 | 0:00 | 90:00 |
| Module 7: Maintain the health of the zoo animals | 40:00 | 50:00 | 0:00 | 0:00 | 90:00 |
| AGR/N9919: Ensure resource optimization and occupational health and safety in animal facilities NOS Version No. 2.0 NSQF Level 4 | 35:00 | 25:00 | 0:00 | 0:00 | 60:00 |
| Module 8: Optimize resource utilization at the workplace | 05:00 | 05:00 | 0:00 | 0:00 | 10:00 |
| Module 9: Maintain a safe workplace | 30:00 | 20:00 | 0:00 | 0:00 | 50:00 |
| DGT/VSQ/N0102 Employability Skills NOS Version-1.0 NSQF Level-4 | 60:00 | 00:00 | 0:00 | 0:00 | 60:00 |

| | | | | | |
|---------------------------------|---------------|---------------|------|------|---------------|
| Module 10: Employability Skills | 60:00 | 00:00 | 0:00 | 0:00 | 60:00 |
| Total Duration | 210:00 | 180:00 | | | 390:00 |

Module Details

Module 1: Introduction to the Zoo and the job role

Bridge module

Terminal Outcomes:

- Describe the career opportunities in the zoo and wildlife sector.
- Explain the role and responsibilities of a zoo animal keeper.
- Discuss the layout and functioning of a zoo.

| | |
|---|--|
| Duration: 05:00 | Duration: 05:00 |
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the available career opportunities in the zoo and wildlife sector. • Define the role and responsibilities of a zoo animal keeper. • Describe the organisation and functioning of a zoo. • List the rules governing a zoo. • Explain the applicable best practices related to animal welfare. | <ul style="list-style-type: none"> • Label the layout of a zoo. |
| Classroom Aids: | |
| Trainee’s training kit, computer, projector, black/ white board. | |
| Tools, Equipment and Other Requirements | |
| N/A | |

Module 2: Interpret the characteristics of the zoo animals

Mapped to NOS AGR/N4613 v1.0

Terminal Outcomes:

- Identify different types of zoo animals – mammals, birds and reptiles.
- Describe the characteristics of the zoo animals.
- Identify the habitat requirements and food habits of the zoo animals.
-

| Duration: 15:00 | Duration: 10:00 |
|--|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the classification of the animal kingdom. • List the common mammals, birds and reptiles kept in a zoo. • Describe the natural habitat of different groups of animals and the importance of replicating them in a zoo. • Distinguish between normal and weather-specific habitat for the different types of zoo animals. • Discuss the food habits of different groups of animals. • Describe the physical and characteristics of different types of zoo animals. • Discuss the ways to identify compatibility amongst different types of zoo animals. | <ul style="list-style-type: none"> • Prepare a model of a typical habitat of a zoo animal (mammal). • Prepare a model of a typical habitat of a zoo animal (bird). • Prepare a model of a typical habitat of a zoo animal (reptile). • Select the types of food given to the different types of zoo animals – mammals, birds and reptiles. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee’s training kit and guide. • Trainer’s guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos of the zoo animals – (mammals, birds, reptiles); food and nutritional requirement and habitat requirement of the zoo animals. • Models of the animal pens/ enclosures. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Animal beds, food and water pails, chains, locks and keys, hose, and nozzle, rake, shovel, wheelbarrow, multi-tool kit, torch light, whistle, stick. • Personal Protective Equipment. | |

Module 3: Interpret the behaviour of the zoo animals

Mapped to NOS AGR/N4613 v1.0

Terminal Outcomes:

- Identify the behaviour of different types of zoo animals – mammals, birds and reptiles.
- Follow the occupational health, safety, hygiene and quality standards at the workplace.

| Duration: 15:00 | Duration: 10:00 |
|--|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Distinguish between normal and abnormal behaviour of the mammals, birds and reptiles found in a zoo. • Explain the situations that may affect the behaviour of animals in a zoo. • Describe the seasonal and biological changes that occur in the zoo animals. • Discuss the protocols to be followed based on the various changes (physical, biological and behavioural) in animals. | <ul style="list-style-type: none"> • Assess the behaviour of the zoo animals in different situations. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee’s training kit and guide. • Trainer’s guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on abnormal and normal behaviour of the zoo animals. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Personal Protective Equipment. | |

Module 4: Manage animals' habitat

Mapped to NOS AGR/N4614 v1.0

Terminal Outcomes:

- Explain how to house different types of zoo animals as per their habitat.
- Follow safety protocol for self, visitors and animals.

| Duration: 15:00 | Duration: 25:00 |
|---|---|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the dimensions of animal pens/ enclosures required for housing different types of zoo animals. • List the items which are used as nesting material for the zoo animals. • Explain the hygiene and sanitation standards to be followed for the upkeep of animal pens/ enclosures. • Name the tools and chemicals required for the cleaning of animal pens/ enclosures. • State the safety and security measures adopted for the animal pens/ enclosures. • Explain safe waste disposal practices at workplace. • Explain the safety protocols to be followed for zoo employees, visitors and animals. | <ul style="list-style-type: none"> • Sketch the layout of species-specific animal pen/ enclosure. • Demonstrate building of weather specific habitat for a particular species. • Demonstrate cleaning of animal pens/ enclosures using the provided tools and chemicals. • Demonstrate waste disposal methods. • Demonstrate the methods of ensuring safety and security of animal pens/ enclosures. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee's training kit and guide. • Trainer's guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos of the zoo animals – (mammals, birds, reptiles); habitat requirements, safety and security procedures. • Models of the animal pens/ enclosures. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Animal beds, food and water pails, chains, locks and keys, hose, and nozzle, rake, shovel, wheelbarrow, multi-tool kit, torch light, whistle, stick. • Personal Protective Equipment. | |

Module 5: Feed the animals

Mapped to NOS AGR/N4614 v1.0

Terminal Outcomes:

- Interpret nutritional requirement of different types of zoo animals.
- Feed different types of zoo animals as per their food habits/ zoo's diet plan.

| Duration: 15:00 | Duration: 25:00 |
|---|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • List the types of food item for feeding different types of zoo animals, as per the zoo's diet plan. • Explain the requirement of special diets for certain animal (s). • Describe weather-specific diets for the zoo animal (s). • Explain the method of feeding different groups of animals (mammals, birds, reptiles etc.) found in a zoo. • List the applicable quality standards for different types of animal feed. • Explain the precautions to be followed while feeding the carnivores, large herbivores and other dangerous zoo animals. • Explain the importance of recording feed intake by animals. | <ul style="list-style-type: none"> • Demonstrate the method of preparing food/feed for different types of zoo animals as per the diet plan. • Demonstrate cleaning of feed and water troughs. • Demonstrate the method of filling feed and water troughs for different category of zoo animals. • Demonstrate feeding different categories of animals (large herbivores, carnivores, birds, reptiles etc.). • Prepare a record of feed intake by a sample set of animals. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee's training kit and guide. • Trainer's guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on feed and nutritional requirements of different types of zoo animals – mammals, birds and reptiles. • Charts and videos on feeding different types of zoo animals – mammals, birds and reptiles. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Animal beds, food and water pails, chains, locks and keys, hose, and nozzle, rake, shovel, wheelbarrow, multi-tool kit, torch light, whistle, stick. | |

Module 6: Groom and provide exercise to the animals

Mapped to NOS AGR/N4614 v1.0

Terminal Outcomes:

- Provide grooming to different types of zoo animals.
- Make the animals exercise.

| Duration: 10:00 | Duration: 30:00 |
|--|---|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the procedure of inspecting a zoo animal before grooming or exercise. • Explain the precautions to be taken while handling and grooming different types of zoo animals – mammals, birds and reptiles. • Describe the process of administering first-aid to an animal. • Explain the process of intimating a veterinarian regarding an animals' condition. • Explain the importance of grooming in the well-being of an animal. • Explain the Standard Operating Procedure of grooming the zoo animals. • Explain the importance of taking personal inoculation as per schedule. | <ul style="list-style-type: none"> • Demonstrate the methods of handling different types of zoo animals safely. • Demonstrate the method of inspecting a zoo animal before grooming or exercise. • Demonstrate the use and maintenance of grooming tools. • Demonstrate the steps involved in grooming animals. • Demonstrate the use of personal protective equipment. • Demonstrate the method of administering first-aid to an animal. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee's training kit and guide. • Trainer's guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on handling and grooming different types of zoo animals. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Grooming kit - bucket, mug, wash bowl, toilet soap, anti-lice shampoo, combs, hand brush, coarse cloth, cotton roll, paper napkin, leash, chain, collar, harness, hair clipper, nail clipper, scissors, tweezer, muzzle, feed bag, small container with lid for kerosene oil. • Personal Protective Equipment. • Animal restraining kit. | |

Module 7: Maintain the health of the zoo animals

Mapped to NOS AGR/N4615 v1.0

Terminal Outcomes:

- Assist a veterinarian in maintaining health of the zoo animals.
- Assist in the breeding programme of the zoo animals.

| Duration: 40:00 | Duration: 50:00 |
|---|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the importance of carrying out health checks like deworming and regular inoculation for different types of the zoo animals. • List down the signs and symptoms of ill-health commonly found in the zoo animals. • Describe the behaviour of the zoo animals in different conditions- fear, anxiety, disease, urge to mate. • Explain the method of tending to sick and injured animals. • State the mating seasons for different types of zoo animals. • Explain the signs of heat in various zoo animals. • Describe the process of housing animals together for mating. • Discuss the signs of compatibility between the pair of animals selected for breeding. • Describe the process of birth of different types of zoo animals. • Discuss the standard operating procedure for rearing the new born. | <ul style="list-style-type: none"> • Prepare a sample plan for deworming of animals as per the instructions. • Prepare a sample animal food/feed as per the diet plan. • Demonstrate the method of caring sick and injured animal. • Identify the indications of heat in various zoo animals. • Demonstrate housing a pair of animals together for the purpose of mating. • Demonstrate preparation of delivery room/ enclosure for birthing. • Demonstrate the process of weaning new born from the mother. • Prepare a sample record of the deworming and inoculation schedule and treatment of the animals. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee’s training kit and guide. • Trainer’s guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on health care, nutrition and breeding of zoo animals. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Grooming kit - bucket, mug, wash bowl, toilet soap, anti-lice shampoo, combs, hand brush, coarse cloth, cotton roll, paper napkin, leash, chain, collar, harness, hair clipper, nail clipper, scissors, tweezers, muzzle, feed bag, small container with lid for kerosene oil. • First-aid kit. • Personal Protective Equipment. | |

Module 8: Optimize resource utilization at the workplace

Mapped to NOS AGR/N9919 v2.0

Terminal Outcomes:

- Identify different types of resources available at the workplace.
- List the methods of resource optimisation at the workplace.
- Handle different types of waste generated at the workplace.

| Duration: 05:00 | Duration: 05:00 |
|---|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • List the different types of resources available at the workplace. • Explain practices for resources conservation including water and electricity in various tasks/activities/processes. • Explain the benefits of resource optimization. • List practices that result in inefficient utilization of resources. • Explain the environment friendly work practices. • Distinguish recyclable, non-recyclable and hazardous waste at the workplace. • Describe waste management and methods of waste disposal. | <ul style="list-style-type: none"> • Demonstrate different methods of resource conservation at the workplace. • Demonstrate segregation of waste into different categories. • Demonstrate how to dispose-off the waste as per the procedure. • Demonstrate how to deposit recyclable and reusable material at identified location. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee’s training kit and guide. • Trainer’s guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on resource utilization and waste disposal. | |
| Tools, Equipment and Other Requirements | |
| | |

Module 9: Maintain a safe workplace

Mapped to NOS AGR/N9919 v2.0

Terminal Outcomes:

- Interpret workplace organizational health & safety and emergency procedures.
- Ensure safety of both animal and self.
- Carry out basic safety check at the workplace.

| Duration: 30:00 | Duration: 20.:00 |
|--|---|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Describe the organizational health and safety and emergency procedures applicable for the workplace. • Explain the importance of inoculations for self and the animals. • Explain how to safely store equipment and materials at the workplace. • Explain the procedure for reporting accidents and incidents. • Discuss the procedures for dealing with accidents, fires and other emergencies at the workplace. • Describe the process of administering first-aid. • Describe the process of evacuation of affected persons and animals. | <ul style="list-style-type: none"> • Demonstrate how to assess possible risks and hazards to self, co-workers and the animals at the workplace. • Demonstrate how to assess the behavior of the animals and restrain them as per the procedure. • Demonstrate the methods of ensuring safety of both animal and self. • Demonstrate the safe use of equipment (e.g. PPE) and materials. • Demonstrate how to maintain emergency equipment and the PPE. • Demonstrate emergency evacuation and first aid procedures. |
| Classroom Aids: | |
| <ul style="list-style-type: none"> • Trainee’s training kit and guide. • Trainer’s guide, Power Point presentation, computer, projector, black/ white board. • Charts and videos on fire-fighting, first aid and emergency procedures at workplace. | |
| Tools, Equipment and Other Requirements | |
| <ul style="list-style-type: none"> • Personal Protection Equipment - clothing, apron, boots, gloves, face mask, stick. • Firefighting and safety equipment – fire extinguishers, fire-fighting equipment, safety signage, evacuation equipment, first aid kit, stretcher. | |

Module 10: Employability Skills (60 hours)

Mapped to NOS DGT/VSQ/N0102 v1.0

Duration: 60:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1.5 Hours

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship Duration: 1.5 Hours

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century Duration: 2.5 Hours

5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting Duration: 2 Hours

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion Duration: 2.5 Hours

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy Duration: 5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.

20. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 10 Hours

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours

30. Describe the significance of analysing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

Annexure

Trainer Requirements

| Trainer Prerequisites | | | | | | |
|-----------------------------------|----------------|------------------------------|--------------------|---------------------|----------------|---|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience | | Training Experience | | Remarks |
| | | Years | Specialization | Years | Specialization | |
| Class 10th | | 7 | Zoo Animal Keeping | | | In Case the person is certified in Animal Health Worker [QP Code: AGR/Q4804, NSQF-3]- 6 years' experience in Zoo Animal Keeping |
| Class 12th | Biology | 6 | Zoo Animal Keeping | | | For Class 12th and certified in Veterinary Clinical Assistant [QP Code: AGR/Q4802, NSQF-5] or Veterinary Field Assistant [QP Code: AGR/Q4801, NSQF-5]-4 years' experience in Zoo Animal Keeping OR Regular Diploma in Veterinary /Animal Husbandry- 4 years 'experience in Zoo Animal Keeping |
| Graduation | Zoology | 01 | Zoo Animal Keeping | | | For B.Voc (Livestock Production and Management)/ B.Sc (Animal Science) experience in Zoo Animal Keeping required is 2 years For B.V.Sc & M. V.Sc / MSc (Animal science) experience in Zoo Animal Keeping required is 6 months |

| Trainer Certification | |
|---|--|
| Domain Certification | Platform Certification |
| Certified for the Job Role: " <u>Zoo Animal Keeper</u> ", mapped to QP: " <u>AGR/Q4604, v2.0</u> ". Minimum accepted score is 80% | Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: " <u>MEP/Q2701, v2.0</u> ". Minimum accepted score is 80% |

Assessor Requirements

| Assessor Prerequisites | | | | | | |
|-----------------------------------|---|------------------------------|---|--------------------------------|----------------|--|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience | | Training/Assessment Experience | | Remarks |
| | | Years | Specialization | Years | Specialization | |
| School Education | Ex. Personnel from Forest/Wildlife Dept/Retired personnel from zoos-Minimum 10 th Pass | 7 | In Animal Science/Veterinary Science/Zoology/Ecology or related fields | 0 | | Practical skills and knowledge required management and care of zoo animals |
| Graduation | B. V. Sc. | 3 | In Animal Science/Veterinary Science/Zoology/Ecology or related fields OR B. Sc -Animal Sciences / Zoology- 5 years' exp. In Animal Science/Veterinary Science/Zoology/Ecology or related fields OR B.Voc (Livestock Production and Management) with 5 years' work experience | 0 | | Practical skills and knowledge required management and care of zoo animals |
| Post-Graduation | M. V. Sc. OR M Sc -Animal Sciences/ Animal Breeding | 1 | In Animal Science/Veterinary Science/Zoology/Ecology or related fields | 0 | | Practical skills and knowledge required management and care of zoo animals |
| PhD | Animal Sciences or other related streams | 1 | In Animal Science/Veterinary Science/Zoology/Ecology or related experience | 0 | | Practical skills and knowledge required management and care of zoo animal |

| Assessor Certification | |
|---|--|
| Domain Certification | Platform Certification |
| Certified for the Job Role: " <u>Zoo Animal Keeper</u> ", mapped to QP: " <u>AGR/Q4604, v2.0</u> ". Minimum accepted score is 80% | Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: " <u>MEP/Q2701, v2.0</u> ". Minimum accepted score is 80% |

Assessment Strategy

Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. **Multiple Choice Questions:** To assess basic knowledge (Objective/Subjective)
2. **Viva:** To assess awareness on processes (Oral and/or written questioning)
3. **Practical:** To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real time' internet based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)

Assessment will be carried out by certified assessors through empaneled assessment partners. Based on the results of assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of Internet.

- Multilingual assessments (ASCI is conducting assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle-screen/copy-paste disabled, etc.
- Android based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention
- Assessment will normally be fixed for a day after the end date of training / within 7 days of completion of training.

- Assessment will be conducted at the training venue
- Room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practical will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, number of assessors and venue facilitation be increased and facilitated

| Assessment | | | |
|-----------------|------------------------|--------------------------------|--|
| Assessment Type | Formative or Summative | Strategies | Examples |
| Theory | Summative | MCQ/Written exam | Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions |
| Practical | Summative | Structured tasks/Demonstration | Practical application /Demonstration /Application tasks |
| Viva | Summative | Questioning and Probing | Mock interviews on usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling job situation |

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioral traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by theoretical understanding of the testing objectives and published research about the item-types and constructs that have shown statistical validity towards measuring the construct. Test item types which have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, do's and don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. Overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework which will maintain standardization of marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidences collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet
 - Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
 - Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by

9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- **Video Calls:** Random video calls are made to the technical SPOC/assessor so as to keep check on assessment quality and ensure assessment is carried out in fair and transparent manner
- **Aadhar verification** of candidates
- **Evening Check (Post Assessment):** Calls are made to the ground team to ensure event is over by what time and the documentation is done in proper manner or not.
- **TP Calling:** To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP SPOC for taking their confirmation
- **Video and Picture Evidence:** Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- **Surprise Visit:** Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- **Geo Tagging:** On day of assessment, each technical SPOC is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have job role specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in storeroom.

Result Review & Recheck Mechanism –

- Time stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till conclusion of project or scheme)

References

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 that together specify the technical, generic, professional and organisational specific knowledge that an individual need 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. |

Acronyms and Abbreviations

| | |
|------|--|
| AGR | Agriculture |
| NOS | National Occupational Standard (s) |
| NSQF | National Skills Qualifications Framework |
| OJT | On-the-job Training |
| QP | Qualifications Pack |
| PwD | People with Disability |
| PPE | Personal Protective Equipment |