Model Curriculum

QP Name: Deep Sea Fisher

QP Code: AGR/Q5004

Version: 3.0

NSQF Level: 4

Model Curriculum Version: 2.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

Table of Contents

Training Parameters 3

Program Overview 5

Training Outcomes 5

Compulsory Modules 5

Module 1: Introduction to the role of a Deep Sea Fisher 7

Module 2: Process of preparing for deep sea fishing activities 8

Module 3: Process of carrying out deep sea fishing activities 10

Module 4: Process of storing and marketing the captured fish 12

Module 5: Basic engine room and maintenance duties 13

Module 6: Basic seamanship activities 15

Module 7: Process of storing and preserving the capture deep sea fish 17

Module 8: Safety and hygiene practices in capturing fisheries 19

Module 9: Employability Skills (60 hours) 20

Annexure 22

Trainer Requirements 22

Assessor Requirements 23

Assessment Strategy 25

References 30

Glossary 30

Acronyms and Abbreviations 31

Training Parameters

Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Capture Fisheries
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6223.0101
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	31/03/2022
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
QP Version	3.0

Model Curriculum Creation Date	31/03/2022
Model Curriculum Valid Up to Date	31/03/2025
Model Curriculum Version	2.0
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 to:

- Describe the process of preparing for deep sea fishing activities.
- Demonstrate the process of carrying out deep sea fishing activities.
- Describe the process of storing and marketing the captured fish.
- Demonstrate the process of carrying out basic engine room and maintenance duties.
- Demonstrate the process of carrying out basic seamanship activities.
- Describe the process of storing and preserving the captured deep sea fish.
- Explain various safety and hygiene practices in capture fisheries operations.

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**	**00:00**	**0:00**	**0:00**	**05:00**
Module 1: Introduction to the role of a Marine Fish/ Deep Sea Fisher	05:00	0:00	0:00	0:00	05:00
AGR/N5011: Prepare for deep sea fishing activity **NOS Version- 2.0** **NSQF Level- 4**	**10:00**	**15:00**	**0:00**	**0:00**	**25:00**
Module 2: Process of preparing for deep sea fishing activities	10:00	15:00	0:00	0:00	25:00
AGR/N5012 Carry out deep sea fishing activity **NOS Version- 2.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 3: Process of carrying out deep sea fishing activities	10:00	20:00	0:00	0:00	30:00
AGR/N5013 Store and market the captured fish **NOS Version- 2.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**

Module 4: Process of storing and marketing the captured fish	10:00	20:00	0:00	0:00	30:00
AGR/N5014 Carry out basic engine room and maintenance duties **NOS Version- 2.0** **NSQF Level- 4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 5: Basic engine room and maintenance duties	15:00	15:00	0:00	0:00	30:00
AGR/N5015: Carry out basic seamanship activities **NOS Version- 2.0** **NSQF Level- 4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 6: Basic seamanship activities	15:00	15:00	0:00	0:00	30:00
AGR/N5016: Store and preserve the captured deep sea fish **NOS Version- 1.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module7: Process of storing and preserving the capture deep sea fish	10:00	20:00	0:00	0:00	30:00
AGR/N5103: Follow the safety and hygiene practices in capture fisheries operations **NOS Version- 2.0** **NSQF Level- 4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 8: Safety and hygiene practices in capturing fisheries	15:00	15:00	0:00	0:00	30:00
DGT/VSQ/N0102 Employability Skills **NOS Version-1.0** **NSQF Level-4**	**60:00**	**00:00**	**0:00**	**0:00**	**60:00**
Module 9: Employability Skills	60:00	00:00	0:00	0:00	60:00
Total Duration	**150:00**	**120:00**	**0:00**	**00:00**	**270:00**
OJT: 120 hours					

Module Details

Module 1: Introduction to the role of a Deep Sea Fisher

Bridge Module

Terminal Outcomes:

- Discuss the job role of a Deep Sea Fisher.

Duration: 5:00	**Duration: 0:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the size and scope of the agriculture industry and its sub-sectors. • Discuss the role and responsibilities of a Deep Sea Fisher. • Identify various employment opportunities for a Deep Sea Fisher.	
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of preparing for deep sea fishing activities

Mapped to AGR/N5011 v2.0

Terminal Outcomes:

- Describe the process of selecting and preparing the fishing vessel and selecting the route.
- Explain various regulatory requirements that need to be followed for deep sea fishing.
- Describe the process of arranging and checking the equipment and other resources.

Duration: 10:00	**Duration: 15:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the selection criteria and use of the appropriate fishing vessel for deep sea fishing. • State the applicable permits and licensing requirements for deep sea fishing. • Describe the process of selecting the route for deep sea fishing and marking it on the map. • Explain the importance of carrying the first aid kit, safety and PPE for deep sea fishing. • Explain the importance and process of checking the scuba diving equipment and its accessories for wear and tear or damage. • List various items to be carried to the deep sea for fishing operations. • Explain the importance of arranging for safe and hygienic storage of food, water, ice, fuel and fish on the vessel. • Explain the importance of selecting a physically fit crew for deep sea fishing.	• Demonstrate the process of testing various equipment on the fishing vessel to ensure they are working as expected. • Demonstrate the process of testing the fish finding, navigation and communication equipment to ensure they are in working condition. • Demonstrate the use of the fishing net, rod, longline gear materials, live baits and other accessories required for deep sea fishing.
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Mechanized And Nonmechanized Fishing Vessel Used For Deep Sea Fishing; Maintenance Kit Of The Fishing Vessel As Per The Manufacturer's Guidelines; Navigation Equipment (Gyro Compass, Radar, Magnetic Compass, Autopilot, Automatic Radar Plotting Aid Displays, Automatic Tracking Aid, Speed And Distance Log Device, Echo Sounder, Electronic Chart Display Information System, Automatic Identification System, Long Range Tracking And Identification (LRIT) System, Rudder Angle Indicator, Voyage Data Recorder, Rate Of Turn Indicator, GPS Receiver, Sound Reception System, Navigational Lights, Ship Whistle, Daylight Signalling Lamp, Pilot Card, Voyage Plan,	

Forecastle Bell, Manoeuvrings Booklet, Black Ball Shape, Transmitting Heading Device, Ship Flags, RADAR, ECDIS, NAVTEX.); Communication Equipment: (UHF/VHF Transceivers, Satellite Phones And DTH, Mobile Phones, MF/HF/VHF RT Set)

Module 3: Process of carrying out deep sea fishing activities

Mapped to AGR/N5012 v2.0

Terminal Outcomes:

- Demonstrate the process of performing deep sea fishing activities.
- Demonstrate the process of carrying out sorting and grading of the catch.
- Describe the process of preserving, storing and unloading the fish.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of checking the weather forecast and sea conditions before going for deep sea fishing. • Explain the importance of maintaining contact with the coast guard helpline and following their instructions to ensure safe navigation in the sea. • Describe the process of selecting an appropriate fishing method depending on the area and the fish species being targeted. • Explain the use of an appropriate type of bait depending on the targeted fish species and the selected fishing method. • State the applicable safety precautions to be taken for catching the fish. • Explain the importance of storing the catch in hygienic conditions, maintaining the recommended temperature.	• Demonstrate the process of operating the fishing vessel. • Demonstrate the process of locating the fishing grounds using the fish finding equipment. • Demonstrate how to anchor the fishing vessel. • Show how to prepare the deck for hauling the catch. • Demonstrate the process of catching the fish as per the standard procedure, taking the applicable safety precautions. • Show how to transfer the catch from the fishing gear to the fishing vessel without damage to the fish. • Demonstrate the process of carrying out the sensory evaluation of the catch. • Demonstrate how to record the sensory evaluation data as per the Quality Index Method (QIM). • Demonstrate the process of carrying out the descriptive test on a sample to determine the quality of the catch. • Demonstrate the process of analysing the results and sorting the fish according to the results of the descriptive test. • Show how to grade the catch using the appropriate graders, on relevant grading parameters. • Demonstrate how to gut and wash

	the gutted fish to remove blood and contaminants from its skin and gills. • Show how to unload the fish from the fishing vessel on returning to the port. • Prepare a sample record of the catch unloaded at the port.
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
The Mechanized And Non-Mechanized Fishing Vessel Used For Deep Sea Fishing; Maintenance Kit Of The Fishing Vessel As Per Manufacturer's Guidelines; Navigation Equipment (Gyro Compass, Radar, Magnetic Compass, Autopilot, Automatic Radar Plotting Aid Displays, Automatic Tracking Aid, Speed And Distance Log Device, Echo Sounder, Electronic Chart Display Information System, Automatic Identification System, Long-Range Tracking And Identification (LRIT) System, Rudder Angle Indicator, Voyage Data Recorder, Rate Of Turn Indicator, GPS Receiver, Sound Reception System, Navigational Lights, Ship Whistle, Daylight Signalling Lamp, Pilot Card, Voyage Plan, Forecastle Bel	

Module 4: Process of storing and marketing the captured fish

Mapped to AGR/N5013 v2.0

Terminal Outcomes:

- Describe the process of storing and marketing the fish.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of arranging the appropriate containers and drums for storing fish. • State the recommended temperature and humidity to store different varieties of captured fish • Describe the process of analysing the market rate for the processed fish and setting its price according to the market rate and its quality. • Describe the process of identifying and negotiating with the potential market/ aggregators/ buyers of the processed fish. • Explain the importance of arranging a safe mode of transport to deliver fish to aggregators/ buyers.	• Demonstrate how to prepare a hygienic storage area for storing the captured fish. • Show how to process the payments using the appropriate electronic payment method. • Show how to calculate the Benefit-Cost (B:C) ratio. • Prepare a sample manual and/or electronic record of sales and payments in the physical registers and/ or the relevant computer application.
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 5: Basic engine room and maintenance duties

Mapped to NOS AGR/N5014 v2.0

Terminal Outcomes:

- Demonstrate the process of carrying out basic engine rooms operations.
- Demonstrate the process of carrying out repair and maintenance activities.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the process of safe and efficient operation of the propulsion machinery and auxiliary equipment. • Explain vari ous safety instructions to be followed while working on electrical equipment and the engine moving parts. • Explain how to check various machineries on the vessel for the recommended pressure, flow and adequacy of lubricant. • Explain the importance of checking that various joints are secured tightly and have no leakages. • Explain how to check the pressure and temperature gauges for the correct functioning. • Describe the process of checking ballast, slops, stowage and security of the engine room stores. • State the recommended lubrication schedule for various engine parts and equipment and the use of a grease gun for lubrication. • Explain the importance of maintaining the cleanliness of the engine and auxiliary units. • State the recommended level of fuel and water to be maintained in the engine. • State the recommended procedures to be followed in case of abnormal smoke, pressure, temperature,	• Demonstrate the use of relevant Personal Protection Equipment (PPE) and hand/ power tools and equipment. • Show how to clean rust, oil paint, grease, salt and dirt from the surface of the vessel and its machinery. • Demonstrate the process of carrying out lubrication of the relevant engine parts and equipment using a grease gun as per the lubrication schedule. • Demonstrate how to clean strainers and filters in various systems. • Demonstrate the process of carrying out maintenance of the fuel injector and fuel injection pump. • Demonstrate the use of the relevant hand and power tools as per the manufacturer's instructions. • Demonstrate the process of carrying out minor carpentry, plumbing and electricity-related work. • Show how to apply paint on the vessel surface. • Demonstrate the process of carrying out minor repair and maintenance of the tools and equipment as per the manufacturer's instructions. • Prepare a sample record of repair and maintenance activities. • Demonstrate various practices to optimise the usage of various resources such as water and

sound on the fishing vessel. • State the recommended maintenance schedule for carrying out minor repair and maintenance of the relevant tools and equipment. • Explain the benefits of resource optimisation. • Explain the importance of recycling and disposing different types of waste as per the applicable regulations. • Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.	electricity. • Demonstrate the process of recycling and disposing different types of waste appropriately. • Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.
Classroom Aids:	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
A Fully Functional Mechanized Deep Sea Fishing Vessel Of Less Than 24m Length, Hand Tools And Power Tools Used In Engine Maintenance	

Module 6: Basic seamanship activities

Mapped to NOS AGR/N5015 v2.0

Terminal Outcomes:

- Demonstrate the process of carrying out mooring and rigging.
- Demonstrate the process of carrying out the watch-keeping activities.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain various nautical terms related to navigation hulls, shipside, engine room, etc. • Explain the system followed to communicate using flags, hand signals and sound signals. • List different types of vessels used in marine and deep sea fishing. • List various parts and components of a vessel. • Explain various activities involved in mooring, rigging and watch-keeping. • Describe the process of making shorts splice, long-splice, back-splice and eye splice. • Describe the winching process and rope handling. • List different kinds of ropes used onboard fishing vessels. • Explain the use, maintenance and storage of natural and synthetic fibre ropes. • Explain how to rig and unrig ladders, hoist, rat-guards and gangways. • Describe the process of mooring to buoys and terminals. • Explain various flag signals, sound signals, modes of communication and related norms. • Explain various navigational charts and their use. • State the flag and sound codes used for deep sea fishing vessel communications.	• Demonstrate how to clean the non-slip mooring deck and snap-back zone. • Demonstrate the process of laying out the mooring rope, maintaining the recommended level of stress. • Demonstrate the process of preparing the heaving line and stopper and arranging a standby spare heaving line. • Show how to control the mooring rope speed when paying out/ heaving up. • Demonstrate how to create various knots, bends, hitches and whipping on ends of the rope, and various splices of ropes, as required. • Demonstrate the use of knotting, splicing and stoppers for rigging. • Show how to rig and unrig safety nets, rat guards, Bosun's chair, pilot ladders securely. • Show how to place blocks and tackles on the vessel to secure the fish and equipment. • Demonstrate the process of carrying out surveillance duty at the vessel. • Demonstrate the use of the Automatic Identification System (AIS) to identify other vessels in operation. • Demonstrate the use of e Global Positioning System (GPS) device and radar. • Show how to read the latitude and longitude values displayed in GPS and

• Explain how to read ocean currents and waves. • Explain the use of the beaufort scale for estimating the water state.	radar to identify the location of the vessel. • Demonstrate the use of gyrocompass and magnetic compass to observe the direction of the vessel. • Demonstrate how to interpret the thermometer, barometer, hygrometer readings • Demonstrate how to hoist a combination of flags and signs using halyards. • Demonstrate the process of recording the bridge activity, observations.
Classroom Aids:	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 7: Process of storing and preserving the capture deep sea fish

Mapped to NOS AGR/N5016 v1.0

Terminal Outcomes:

- Describe the process of storing and preserving the fish.
- Demonstrate the process of maintaining the records.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• State the recommended measures to be followed while hauling the captured deep sea fish into the vessel to protect it from damage. • Explain the importance of washing and cleaning the captured fish immediately after hauling. • Explain the appropriate parameters for sorting and grading fish. • Explain how to perform organoleptic analysis of the captured fish. • Explain the importance of maintaining the captured fish alive to prevent spoilage and damage caused by slime-producing bacteria • State the recommended temperature for storing fish and the benefits of storing it according to the grade. • State the recommended practices to be followed to protect the captured fish from contamination and ensure its hygiene during storage. • Explain the importance of following the SSOP and HACCP method to identify and manage food safety-related risks while handling fish. • Describe the process of drying, salting and smoking for improving the shelf life of fish. • Explain the importance and process of maintaining manual and electronic records. • Explain the importance of maintaining the backup of data to protect against its accidental loss.	• Demonstrate the process of carrying out washing and cleaning of the captured fish to remove any trash and contaminants from the catch. • Demonstrate the process of carrying out sorting and grading of the captured fish as per the appropriate parameters. • Demonstrate how to perform organoleptic analysis of the catch. • Demonstrate the process of carrying out drying, salting and smoking for improving the shelf life of fish after it reaches the shore. • Prepare sample manual and electronic record of the captured fish using the physical registers and the relevant computer software.

Classroom Aids:
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films
Tools, Equipment and Other Requirements
NA

Module 8: Safety and hygiene practices in capturing fisheries

Mapped to AGR/N5103 v2.0

Terminal Outcomes:

- Discuss how to adhere to onboard safe working practices.
- Describe various safety guidelines in water bodies.
- Describe various fish capturing and handling guidelines.

Duration: 15:00	**Duration: 15:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• State the relevant regulations to be followed in the marine waters such as Coastal Regulation Zone (CRZ) guidelines. • Describe the process of using the relevant equipment to detect ships/ boats in the vicinity and the appropriate measures to be followed to avoid collisions. • Describe the process of detecting underwater dangers along the fishing route and appropriate measures to be taken to mitigate them. • State the applicable laws related to fishing methods, use of different types of fishing gear, conservation of banned species, disposal of dead/ damaged fish, etc. • Describe the process of identifying poisonous creatures caught with the fish. • State the temperature and hygiene requirements for storing the fish to maintain its freshness.	• Demonstrate how to use fishing machinery and equipment safely following the manufacturer's instructions. • Demonstrate the process of carrying out regular testing and maintenance of the life-saving and firefighting equipment. • Demonstrate the use of life-saving equipment in case of rough weather/ emergencies. • Show how to use the relevant equipment to detect ships/ boats in the vicinity. • Demonstrate the process of detecting underwater dangers along the fishing route. • Demonstrate the process of Safely disposing the poisonous organisms caught with the fish. • Demonstrate the process of handling and cleaning the fish ensuring minimum damage to it.
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Safety Equipment (Personal Floatation Devices Such As Life Jackets Or Lifeboat; Kill Switch; Fire Extinguisher; Rope; Signaling Devices Such As Handheld Flair, Rocket Parachute (Distress Rocket) Or Smoke Signale; Weather Radio, ILR, HRG Unit; Etc.); Life-Saving Appliances Such As SART And EPIRB; Anchor Supporting Equipment (Plow Style, Danforth Anchors, Mushroom Anchor); Personal Protective Equipment: Polarised Sunglasses, Sunscreen Of Required Sun Protection Factor, Foul Weather Gear.	

Module 9: 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***	
Diploma	Regular Diploma more than 15 months in fisheries	3	Marine Fishery Production and management/ Deep Sea Fishing	0		
Graduate	B. Sc. Zoology	3	Marine Fishery Production and management	0		For the school Program minimum qualification of the trainer should be Graduate. Their Teaching experience will be considered industry experience
Graduate	B. Sc Agriculture / Fisheries	2	Marine Fishery Production and management	0		
Graduate	Bachelor of Fisheries Science/ B.Sc. (Industrial Fish & Fisheries)	0	Marine Fishery Production and management/ Deep Sea Fishing	0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Deep Sea Fisher**", mapped to QP: "AGR/Q5004, v3.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Graduation	B.F. Sc	4	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing
Graduation	B. Tech (Ocean/ Marine Engineering and related streams)	4	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing
Graduation	B. Sc (Fisheries and related streams)	5	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing
Post-Graduation	M. Tech (Marine Engineering/ Ocean engineering and related streams)	2	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing
Post-Graduation	M. F. Sc	2	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing

Post-Graduation	M Sc (Fisheries and related streams)	2	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing
PhD	Ph.D (Fisheries Science and related streams)	1	In Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Ocean Engineering/ Marine engineering or related streams and fields	0		Practical skills and knowledge required in Deep sea fishing

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Deep Sea Fisher**", mapped to QP: "AGR/Q5004, v3.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 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 the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is 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 the 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 the assessment location.

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

- Multilingual assessments (ASCI is conducting the 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 the 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 the training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- The 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 practice 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 questions, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the 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 the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the 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, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a 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 that 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 the 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 a 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, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The 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 that will maintain the standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

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

- GeoTagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
    - Signed Attendance sheet
    - Assessor feedback sheet
    - Candidate feedback sheet

  - Assessment checklist for assessor
  - Candidate Aadhar/ID card verification
  - Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
  - Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of the assessment, regular calls and video calls are done.
- On-boarding and training of the assessor and proctor are done on a timely basis to ensure that the 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 a check on assessment quality and ensure assessment is carried out in a fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.
- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.
- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two 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 the 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 candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	The Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on-site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	The Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	The Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
AGR	Agriculture
AIS	Automatic Identification System
B:C Ratio	Benefit-Cost Ratio
CRS	Coastal Regulation Zone
GMP	Good Manufacturing Practices
GPS	Global Positioning System
HACCP	Hazard Analysis and Critical Control Point
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
PwD	People with Disability
PPE	Personal Protective Equipment
QP	Qualifications Pack
QIM	Quality Index Method
SSOP	Sanitation Standard Operating Procedures