## Syllabus For Hatchery Manager(RPL)

Course Name	Hatchery Manager(RPL)
Sector	AGRICULTURE
Course Code	AGR/2021/HAMA/063
Level	4 (RPL)
Occupation	Hatchery Manager
Course Duration	Total Duration 60 Hrs (T-30 , P-30 )
Trainees' Entry Qualification	Class VIII Pass with 5 years experience in the relevant field
Trainers Qualification	Bachelor degree in Fishery science/ Zoology/ Chemistry or equivalent from a recognized University/ Board/ Institute with minimum 2 Years' experience in Fisheries field.

## **Structure of Course:**

Module No.		Theory (Hrs)	Practical (Hrs)	Total (Hrs)
	Module name			
1	Introduction	4	1	5
2	Ensure Production of Broodstock	5	5	10
3	Ensure preparation of hatchery for operations	10	15	25
4	Prepare reports and manage hatchery budgets	3	2	5
5	Ensure Personnel Management	3	2	5
6	Ensure safety, hygiene and sanitation Practices for Culture operation	5	5	10
	TOTAL	30	30	60

## **SYLLABUS:**

	SYLLABUS:					
SI	Revise Module	Key learning Outcomes	Equipment required			
no	(Proposed)					
1	Introduction  Theory Duration: 4 hrs  Practical Duration: 1 hrs	<ul> <li>Study the scope and importance of hatchery and seed production in India</li> <li>Understand the role of a Hatchery manager and the progression pathways</li> <li>Identify the broodstock and manage the broodstock for breeding</li> <li>Identify different types of cultured fishes of freshwater, brackishwater and marine water and their breeding protocols</li> </ul>	Laptop, white board, marker, projector			
2	Ensure Production of Broodstock  Theory Duration: 5 hrs  Practical Duration: 5 hrs	<ul> <li>Identify brood stock depending on culture species (Freshwater, brackishwater or marine fish).</li> <li>Perform pond preparation</li> <li>Carry out proper liming, manuring and fertilization of pond.</li> <li>Select quality broodstock and quarantine</li> <li>Perform brood stock packaging and transportation</li> <li>Understand brood stock nutritional requirements and feeding</li> <li>Carry out soil, water and fish sampling</li> <li>Perform water quality and health management</li> </ul>	Oxygen cylinder, Packaging material – Plastic bags, Anaesthesia, Bucket, torch etc			
3	Ensure preparation of hatchery for operations  Theory Duration: 10 hrs.  Practical Duration: 15 hrs.	<ul> <li>Design, modify and construct hatcheries</li> <li>Perform stocking and broodstock management</li> <li>Select quality broodstock for breeding</li> <li>Supervise breeding schedule</li> <li>Carry out breeding</li> <li>Produce quality seeds</li> <li>Ensure stocking of healthy seed</li> <li>Ensure timely circulation of water and proper aeration in the tanks</li> <li>Carry out culture of live food organisms</li> <li>Water quality management,</li> <li>Use probiotics and medicines to control diseases and quarantine</li> <li>Preparation of feed charts and feeding</li> </ul>	Breeding hapa, anaesthesia, water pump, injection, torch, bucket			

SI no	Revise Module (Proposed)	Key learning Outcomes	Equipment required
4	Prepare reports and manage hatchery budgets Theory duration: 3 hrs Practical duration: 2 hrs	<ul> <li>Carry out documentation</li> <li>Keep records of hatchery operations</li> <li>Prepare hatchery budget</li> <li>Coordinate with colleagues.</li> </ul>	Laptop. Note book, Pen, Marker.
5	Ensure Personnel Management  Theory duration: 3 hrs  Practical duration: 2 hrs	<ul> <li>Determine manpower required for different hatchery operations</li> <li>Set KRAs of all employees and also to ensure proper functioning of all colleagues</li> <li>Undertake monitoring of the hatchery operations</li> <li>Set up effective coordination between hatchery staff</li> <li>Train the workers</li> </ul>	Laptop, white board, marker, projector, Audio-visual aids
5	Ensure safety, hygiene and sanitation Practices for Culture operation  Theory Duration 5 hrs  Practical Duration 5 hrs  Total duration of course: 60 hrs Theory: 30 hrs, Practical: 30hrs.	<ul> <li>Ensure proper biosecurity measures are adopted at hatchery</li> <li>Maintain hygiene and health of seeds at various stages of growth,</li> <li>Identify common preys and predators,</li> <li>Use of protective clothing and gear,</li> <li>Carry out regular inspection of pathogenic infections, and disease outbreaks.</li> </ul>	Grinder, mixer, pelletizer, soil and water testing kit, pH meter, nets, aerator, Water Pump, hypochlorite solution, surgical knife, Gum boots, Breeding hapa, Syringe, gloves, Power backup