



Prof. Rajendra Singh (Rajju Bhaiya) University, Prayagraj

Vocational/ Skill Development Course

National Education Policy-2020

Programme/Class: Diploma

Course Code: I010005T

Subject: Vocational Course

Course Title- FISHERIES.

Credits: 3

Max. Marks : 25+75 (100)

सं - जोशसिवि वि/कुशका/2022-773  
दिनांक 31.01.2022

Min. Passing Marks: 35

Unit	Topics	No. of Lectures Theory=15, Practical=60
I	<b>FISHERIES AND NATIONAL DEVELOPMENT:</b> Meaning of Fisheries. Types of Fisheries: Culture fisheries (aquaculture) Capture fisheries (fishing) - Subsistence Fisheries - Artisanal Fisheries - Commercial Fisheries - Industrial Fisheries. Importance of Fisheries to national development: - Food source - Income generation - Employment - Foreign exchange - Industrial Raw materials - Social and cultural life	Theory=03
II	<b>FISHERY ORGANISMS AND THEIR HABITATS:</b> <b>Common Fishery Organisms:</b> Fin fishes (herring, tuna, tilapia, etc); Shell fishes (crustaceans and molluscs). <b>Fishery Habitats:</b> Freshwater (e.g. river, lake), Brackish water (e.g. estuary, lagoon), Marine (sea) - Pelagic zone - Demersal zone <b>Major aquatic Invasive Alien Species</b> 1. <i>Eichhornia crassipes</i> (Water Hyacinth) 2. <i>Cyperus papyrus</i> (Papyrus reed) 3. <i>Salvinia molesta</i> (Kariba weed) 4. <i>Limnocharis flava</i> (Limnocharis) 5. <i>Pistia stratiotes</i> (Water lettuce) 6. <i>Azolla filiculoides</i> (Water fern) 7. <i>Enteromorpha flexura</i> (Filamentous algae) 8. <i>Ceratophyllum</i>	Theory=04
III	<b>Effects of aquatic Invasive Alien Species on: Fishery habitat</b> - Spread to cover water surfaces - Decrease light penetration - Reduction of oxygen content in water - Increase acidity of water - Sedimentation through decaying - Rapid water loss due to transpiration <b>Fishery Organisms</b> - Blurred vision of fish due to turbid water - Reduction in growth due to acidity of the water - Poor respiration due to low oxygen level of water	Theory=04
IV	<b>Fishers</b> - Hinder transportation on water body - Inhibit the use of fishing gears - Limit quantity of fish caught leading to loss of revenue - Makes water unsafe for fishers due to growth of water snails which carry bilharzia - Bad colour and odour leading to poor quality of drinking water <b>Preventive Measures</b> - Awareness creation through education - Screening of plants at Border Posts and other Entry points - Monitoring of Invasive Alien Species - Enforcement of Plant Protection and Regulatory laws <b>Control Measures</b> - Physical (Manual removal of plants) - Biological (Use of host specific insects, pathogens, parasitoids use of some fish species)	Theory=04

Reference books:

1. Bardach, J. (1997). Sustainable Aquaculture. John Wiley & Sons. New York.
2. Blaxter, J. H. S. and Q. Bone (1995). Biology of Fishes. 2<sup>nd</sup> edn. Blackie Academic & Professional. 344 pp. Hardback 0751402435
3. Cresswell, L. R. (ed.) (1993). The aquaculture manual. 150 pp. Hardback 0442010818.
4. FAO (2006) Simple methods for aquaculture. Manual from the FAO training series. (CD-ROM)