



Prof. Rajendra Singh (Rajju Bhaiya) University, Prayagraj

Vocational/ Skill Development Course

Programme/Course: **Diploma**

Course Code: **I010005T**

Subject: **Vocational Course**

Course Title- **Fisheries.**

Credits: **3 (1+2)**

Max. Marks : **40+60 (100)**

Min. Passing Marks: **40**

Unit	Topics	No. of Lectures Theory=15, Practical=60
I	Fisheries and National Development: 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	Fishery Organisms and their Habitats: Common Fishery Organisms: Fin fishes (herring, tuna, tilapia, etc.); Shell fishes (crustaceans and mollusks). Fishery Habitats: Freshwater (e.g. river, lake), Brackish water (e.g. estuary, lagoon), Marine (sea) - Pelagic zone - Demersal zone Major aquatic Invasive Alien Species 1. <i>Eichhornia crassipes</i> (Water Hyacinth) 2. <i>Cyperus papyrus</i> (Papyrus reed) 3. <i>Salvinia molesta</i> (Kariba weed) 4. <i>Limncharis flava</i> (Limncharis) 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	Effects of aquatic Invasive Alien Species on: Fishery habitat - 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 Fishery Organisms - 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	Fishers - 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 Preventive Measures - 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 Control Measures - Physical (Manual removal of plants) - Biological (Use of host specific insects, pathogens, parasitoids use of some fish species)	Theory=04

Reference books:

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