

## Annexure "C"

### Syllabus for Field Inspector/Field Assistant

|    | Name of the Subject   | Topic Name   |
|----|---|--|
| a) | <b>Environmental Knowledge</b> <b>General</b>                   | <ul style="list-style-type: none"> <li>• National / International events related to the environment and common understanding of environmental processes, NGT Act, Pollution Indices.</li> <li>• Abiotic and biotic environment, Non-renewable resources, Health hazards due to Environmental Pollution.</li> </ul>   |
| b) | <b>Water / Waste Water / Industrial Waste Water Engineering</b> | <ul style="list-style-type: none"> <li>• Estimating sewage discharge, quantity of sewage per capita and its relationship per capita water supplied, design periods.</li> <li>• Unit processes / Operations related to water and waste water treatment, namely Equalization Coagulation; Flocculation; Settling; filtration; Disinfection; Aeration; Adsorption etc.</li> <li>• Physical, chemical and biological characteristics of water and sewage; Activated sludge process and its modifications; treatment ponds and aerated lagoons; Trickling filters; Rotating biological contactors; Sequencing Batch reactor and Membrane Batch Reactor.</li> <li>• Anaerobic digestion; Anaerobic filter and UASB, Nitrification &amp; De-nitrification.</li> <li>• Types of pumps required for pumping sewage such as, centrifugal pumps, reciprocating pumps, diaphragm pumps and pneumatic ejectors; Pumping stations – their locations and component parts.</li> <li>• Characteristics and treatment of waste from Textile, Tannery, Dairy, Distillery, Cement Industry.</li> </ul> |
| c) | <b>Water / Waste Water / Industrial Waste Water Analysis</b>    | <ul style="list-style-type: none"> <li>• Physical, chemical, and biological characteristics of water, and sewage, performance evaluation of the wastewater treatment system.</li> </ul>  |
| d) | <b>Environmental Assessment</b> <b>Impact</b>                   | <ul style="list-style-type: none"> <li>• Basic concept of Environmental Impact Assessment, Environmental Impact statement, and Environment Management Plan.</li> <li>• Prediction and assessment of impacts on air, water, biota, noise, cultural, and socio-economic environment.</li> <li>• Rapid and comprehensive Environmental Impact Assessment.</li> <li>• Use of GIS in making EIA reports for industries and remote sensing and other software use in EIA studies.</li> </ul>   |
| e) | <b>Environmental Legislations in India</b>                      | <ul style="list-style-type: none"> <li>• Environment (Protection) Act 1986, its amendments, and various rules /notifications made therein.</li> <li>• Environmental Impact Assessment notification, 2006-salient features.</li> <li>• Water (Prevention &amp; Control of Pollution) Act, 1974. Air (Prevention &amp; Control of Pollution) Act 1981.</li> </ul>  |
| f) | <b>Environmental Audit and Safety Audit in Industrial units</b> | <ul style="list-style-type: none"> <li>• Environmental Audit and Safety Audit in Industrial units.</li> <li>• On site and off site emergency plan, Disastrous management plan.</li> </ul>  |

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