SYLLABUS OF WRITTEN TEST FOR RECRUITMENT TO THE POST OF SCIENTIST/ENGINEER 'SC'
ADVERTISEMENT NO.: सैक SAC: 01:2026, Dated 23.01.2026

DOMAIN: MARINE BIOLOGY / MARINE SCIENCE
Post Code – 15

Marine Ecology and Environment
Fundamentals of Marine Ecology, marine science, biodiversity, Invertebrate and Vertebrate Biology. Study of coastal ecosystems, deep-sea ecology, marine flora and fauna, and zonation. Coastal zone management, and climate change impacts. Study of marine ecosystems, coral reefs, mangroves, plankton, and nekton. Ecology of coral reefs and mangrove habitats; their special features. Physico-chemical properties of estuaries; Classification of estuaries.

Marine Biology, Pollution & Adaptations:
Primary production, Microbial taxonomy, marine pollution sources, and pollution control techniques. Physiology, classification, and adaptations of marine organisms, deep-sea biology, and marine bio-deterioration. Marine Biotechnology, Marine Environmental Conservation, physiology, and resource management. Sources of marine pollution, its dynamics, transport paths and agents.

Fisheries Science & Aquaculture
Management of Aquaculture Systems, Ecofriendly aquaculture practices, Basic concepts of Coastal Regulatory Zones, hatchery management, fish preservation techniques, and pathology, Fish taxonomy, population dynamics, fish stock assessment, capture fisheries, and gear technology, Culturing systems (finfish/shellfish), live feed culture, induced breeding, disease management, and genetic improvement. Marine Aquaculture, Fisheries Science, fisheries technology.

Physical & Chemical Oceanography
Fundamentals of Oceanography, Ocean currents, tides, waves, temperature distribution, water composition, and nutrient cycles, Principles of sea water, waves, currents, tides, salinity, and nutrients. General introduction of marine chemistry, Biogeochemical Interactions, Instruments, Measurements and Data Analysis.

Basics of remote sensing
Introduction to Remote Sensing, Principles of aerial photography, Electromagnetic radiation. Principles of remote sensing and GIS for Ocean management, Coastal and ocean resource management - endangered coastal biota, marine biosphere reserves and marine parks. Remote sensing applications in coastal zone management. Marine Microbiology, Marine Pollution and Management, Research Methodology, Introduction to Earth, Ocean, Atmosphere and Climate.

Hindi version shall follow.