

# Syllabus for the CMCRVF Written Exam

**Exam pattern:** Exam will contain 50 MCQs and 10 MSQs. Total marks for the examination will be of 60 marks. There will no negative marking for wrong answer. The final selection will be based upon the total mark obtained in examination (60) and synopsis submitted (40).

1. General Awareness (History of India and Assam, Geography of India and Assam, Culture of India and Assam), General English and National and International Current Affairs

2. Environmental Studies (Graduate level)

i. Fundamental of Environment

Formation and composition of earth's atmosphere; Evolution of earth's climate; Ozone layer; Natural and man-made water bodies; Hydrogeological cycle; Structure of earth; Types of rocks and soils.

ii. Natural Resources

Environment and its components; Natural Resources: Renewable and non-renewable resources; Types of natural resources – forest, water, mineral, food, energy, land; Use of natural resources, over-exploitation and consequences.

iii. Ecology and Ecosystems

Fundamentals of ecosystem – types, structure and function of ecosystem; Energy flow in an ecosystem – food chains, food webs, ecological pyramids and ecological succession; Nutrient cycles.

iv. Biodiversity and Conservation

Levels and patterns of biological diversity; Biodiversity hot spots in India; Biogeographic zones of India; Biological diversity in India and Assam; Biodiversity associated socio-cultural systems and livelihood in Assam; IUCN categories and Red List; Biodiversity conservation – *In Situ* and *Ex Situ*; National Parks, Wildlife Sanctuaries, Biosphere Reserves, and Wetlands of India and Assam; Threats to biodiversity: habitat loss, poaching of wildlife, man –wildlife conflicts; Endangered and endemic species of India.

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v. **Environmental Pollution and Health Hazards**

Fundamentals of environmental pollution – types, causes, sources, effects and controls; Air quality standards in India; Water quality standards in India; Noise exposure levels and standards in India; Sewage and wastewater treatment; Ground water pollution; Synthetic fertilizers and their impact on soil; Human population growth; Impacts on environment, human health and welfare; Disaster management: floods, earthquake, cyclones, landslides, Glacial Lake Outburst Floods (GLOF); Food Security.

vi. **Climate Change**

Introduction to Climate Change; Definition of weather and climate; Causes of Climate Change; Greenhouse Gases; Global Warming; Extreme Weather Events; Impacts on Ecosystems; Effects on Agriculture; Climate change adaptation; Climate change mitigation; Climate vulnerability in India and Assam; SDGs in the context of climate change; Climate disasters and management.

vii. **Environment and Society**

Environmental Sociology; Environmental Justice; Environmental and Social issues; Cultural Perspectives on the Environment; Globalization and Environmental Change; Sustainable Development, Climate Change and Social Impacts; Corporate Social Responsibility (CSR); Environmental Movements and Activism; Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.

viii. **Environment Economics**

Green Economy; Bioeconomy; Circular economy, Carbon market; Carbon trading; Carbon credit

ix. **Environmental Legislation and Policy**

International organizations and environmental policies – IPCC, UNFCCC, UNEP, IUCN, COP, Stockholm Environment Conference, Montreal Protocol, Kyoto Protocol, Agenda 21, Sustainable Development Goals (SDGs); Environmental legislation in India – Acts and policies in India and Assam (The Indian Forest Act, 1927; Forest Conservation Act, 1989; Wildlife Protection Act, 1972; Environmental Protection Act, 1986; National Environment Policy, 2006; National Water Policy, 2012; Assam Forest Regulation Act, 1891, National Action Plan on Climate Change (NAPCC); State Action Plan on Climate Change (SAPCC), etc.

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