

Selection process for Chief Minister's Climate Resilient Village Fellowship Programme

A. Exam date and place:

Exam Date: 12th March, 2023. **Time:** 10.00 AM to 11.30 AM.

Venue: S.B Deorah College, Bora Service, Guwahati Shillong Road, Ulubari, Guwahati, Assam 781007.

(Due to lack of student coverage, examination will be held in one Centre only)

B. **Exam pattern:** Exam will be both Objective and Subjective type, with 20 objective type and 3 subjective type questions. Total marks for the examination will be of 50 marks.

C. Syllabus for the written exam

1. Fundamental of Earth's systems

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.

2. Climate Change

Definition of weather and climate; Types of climate classification; Köppen climate classification; Fundamentals of climate change – causes and impacts; GHG and Global warming; Extreme weather events; Climate vulnerability in India and Assam; SDGs in the context of climate change; Climate change mitigation and adaptation; Climate change and agriculture; Climate change and development; Climate disasters and management.

3. Environmental Pollution

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.

4. Ecology and Environment

Fundamentals of ecosystem – types, structure and function of ecosystem; Energy flow in an ecosystem – food chains, food webs, ecological pyramids and ecological succession; Interspecific interactions -- Commensalism, mutualism, competition and predation; Nutrient cycles (N,O,C,P); Types of natural resources – forest, water, mineral, food, energy, land; Use of natural resources, over-exploitation and consequences; Renewable energy; Environmental economics.

5. Biodiversity

Levels and patterns of biological diversity; Diversification and extinction through geological time scale; Measurement of biodiversity – Species richness & abundances; Diversity indices; 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.

6. Laws, Acts and Policies

International organizations and environmental policies – IPCC, UNFCCC, UNEP, IUCN, COP, ZSI, BSI, WII, ICFRE , Clean Development Mechanism (CDM), 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.

7. Current Affairs

General awareness and current affairs on the above topics.



Sd/-

Director, ASTE Council