



# प्रदेश लोक सेवा आयोग

लुम्बिनी प्रदेश, बुटवल



पाठ्यक्रम उपर सुझाव पेश गर्ने सम्बन्धी सूचना।

सूचना नं.: २१३/०८२-८३

मिति: २०८२/१२/१७

प्रदेश लोक सेवा आयोग नियमावली, २०७६ को नियम ६ बमोजिम पाठ्यक्रम निर्माण समितिबाट निर्माण गरिएका प्रदेश निजामती सेवा अन्तर्गतका प्रदेश वन सेवा, वातावरण समूह, अधिकृत सातौं तहका वातावरण निरीक्षक तथा स्थानीय निजामती सेवा अन्तर्गतका स्थानीय प्रशासन सेवा, विविध समूह, अधिकृत सातौं तहका वातावरण निरीक्षक/वातावरण इन्जिनियर पदहरूको खुला र अन्तरतह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम आयोगको सूचना खण्डमा राखिएको छ। उक्त पाठ्यक्रम उपर केही सुझाव भएमा आयोगको इमेल ठेगाना [ppsc.lumbini@gmail.com](mailto:ppsc.lumbini@gmail.com) मा वा अन्य माध्यमद्वारा ७ (सात) दिन भित्र यस आयोगमा आइपुग्ने गरी पठाइदिनु हुन आयोगको मिति २०८२/१२/०६ गतेको निर्णयानुसार सम्बन्धित सबैको जानकारीको लागि अनुरोध छ।

**प्रदेश लोक सेवा आयोग, लुम्बिनी प्रदेश**

प्रदेश निजामती सेवा अन्तर्गत प्रदेश वन सेवा, वातावरण समूह, अधिकृत सातौं तहका वातावरण निरीक्षक र स्थानीय निजामती सेवा अन्तर्गत स्थानीय प्रशासन सेवा, विविध समूह, अधिकृत सातौं तहका वातावरण निरीक्षक/वातावरण इन्जिनियर पदहरूको खुला र अन्तरतह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

प्रथम चरण:- लिखित परीक्षा (Written Examination)	पूर्णाङ्क:- २००
द्वितीय चरण:- क) सामूहिक परीक्षण (Group Test)	पूर्णाङ्क:- १०
ख) अन्तर्वार्ता (Interview)	पूर्णाङ्क:- ३०

**परीक्षा योजना (Examination Scheme)**

प्रथम चरण : लिखित परीक्षा (Written Examination) पूर्णाङ्क :- २००

पत्र	विषय	खण्ड	पूर्णाङ्क	उत्तिर्णाङ्क	परीक्षा प्रणाली	प्रश्नसंख्या X अङ्क	समय	
प्रथम	General Subject	Part I: General Awareness & General Reasoning Test	१००	४०	वस्तुगत (Objective)	बहुवैकल्पिक प्रश्न (MCQs)	५० प्रश्न X १ अङ्क	१ घण्टा ३० मिनेट
		Part II: General Technical Subject					५० प्रश्न X १ अङ्क	
द्वितीय	Technical Subject		१००	४०	विषयगत (Subjective)	छोटो उत्तर लामो उत्तर	४ प्रश्न X ५ अङ्क ८ प्रश्न X १० अङ्क	३ घण्टा

द्वितीय चरण : सामूहिक परीक्षण (Group Test) र अन्तर्वार्ता (Interview) पूर्णाङ्क :- ४०

पत्र / विषय	पूर्णाङ्क	परीक्षा प्रणाली	समय
सामूहिक परीक्षण (Group Test)	१०	सामूहिक छलफल (Group Discussion)	३० मिनेट
अन्तर्वार्ता (Interview)	३०	बोर्ड अन्तर्वार्ता (Board Interview)	-

द्रष्टव्य :

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ ।
- प्रथम र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर वापत २० प्रतिशत अङ्क कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस वापत अङ्क दिइनेछैन र अङ्क कट्टा पनि गरिने छैन ।
- बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा कुनै प्रकारको Memory युक्त विद्युतीय उपकरण जस्तै: मोबाइल फोन, क्याल्कुलेटर (Calculator), Smart घडी जस्ता वस्तुहरू प्रयोग गर्न पाइने छैन ।
- विषयगत प्रश्नहरूको हकमा तोकिएको अंकको एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुईभन्दा बढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरू (Short notes) सोध्न सकिनेछ ।
- द्वितीय पत्रमा विषयगत प्रश्न हुनेका हकमा प्रत्येक खण्ड Section का लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू विज्ञापन हुदाका मितिमा कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।
- प्रथम चरण (First Phase) को लिखित परीक्षामा छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीय चरण (Second Phase) को सीप परीक्षण, सामूहिक परीक्षण र अन्तर्वार्तामा सम्मिलित गराइनेछ ।
- प्रथम चरणको लिखित परीक्षा र द्वितीय चरणको सीप परीक्षण, सामूहिक परीक्षण र अन्तर्वार्ताको कुल अङ्क योगका आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ ।
- पाठ्यक्रम स्वीकृत मिति : ( २०८२/.../.....

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प्रथम पत्र (Paper I): General Subject

**Part (I): - General Awareness & General Ability Test (50 Marks)**

**1. General Awareness and Contemporary Issues (25 ×1 Mark = 25 Marks)**

- 1.1. Physical, socio-cultural and economic geography and demography of Nepal
- 1.2. Major natural resources of Nepal
- 1.3. Geographical diversity, climatic conditions, and livelihood & lifestyle of people
- 1.4. Notable events and personalities, social, cultural and economic conditions in modern history of Nepal
- 1.5. Current periodic plan of Nepal and Lumbini Province.
- 1.6. Information on sustainable development, environment, pollution, climate change, biodiversity, science and technology
- 1.7. Nepal's international affairs and general information on the UNO, SAARC & BIMSTEC
- 1.8. The Constitution of Nepal (From Part 1 to 5, 20 and 26 and Schedules)
- 1.9. Governance system and Government (Federal, Provincial and Local)
- 1.10. Provisions of civil service act and regulation relating to constitution of civil service, organizational structure, posts of service, fulfillment of vacancy and code of conduct
- 1.11. प्रदेश निजामती सेवा ऐन, २०८० र प्रदेश निजामति सेवा नियमावलि, २०८०
- 1.12. स्थानीय निजामती सेवा ऐन, २०८१ र स्थानीय निजामति सेवा नियमावलि, २०८१
- 1.13. सार्वजनिक खरिद ऐन, २०६३ र सार्वजनिक खरिद नियमावली, २०६४
- 1.14. प्रदेश सुशासन ऐन, २०७६ र प्रदेश सुशासन नियमावली, २०७७
- 1.15. Functional scope of public services
- 1.16. Public Service Charter
- 1.17. Concept, objective and importance of public policy
- 1.18. Fundamentals of management: planning, organizing, directing, controlling, coordinating, decision making, motivation and leadership
- 1.19. Government planning, budgeting and accounting system
- 1.20. Major events and current affairs of national and international importance

**2. General Reasoning Test**

**(25 ×1 Mark = 25 Marks)**

- 2.1. Logical Reasoning (9×1 Mark = 9 Marks)  
Verbal Ability, Alphanumeric Series, Reasoning Analogies, Classification, Coding-Decoding, Order & Ranking, Direction and Distance, Analytical and Logical Reasoning, Assertion and Reason, Statement and Conclusions, Input-Output, Venn-diagram
- 2.2. Numerical Reasoning (8×1 Mark = 8 Marks)  
Arithmetic Series, Analogy, Classification, Arithmetical reasoning, Fraction, Percentage, Ratio, Average, Profit & Loss, Time & Work, Date & Calender, Data Sufficiency, Data interpretation & Data verification
- 2.3. Spatial Reasoning (8×1 Mark = 8 Marks)  
Figure Series, Figure Analogy, Figure Classification, Figure Matrix, Pattern Completion, Embedded Image Formation & Analysis, Mirror and Water images, Cubes and Dices, Paper Folding & Cutting

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**Part (I): - General Technical Subject (50 Marks)**

**1. ENVIRONMENTAL FACETS**

**5 Marks**

**1.1. Environment: Concept, Scope and Practices**

- 1.1.1. Development of human society and environment
- 1.1.2. Physical, biological and socio-economic aspects of environment and their interrelationships
- 1.1.3. Environmental degradation and manifestations (land, water and air)
- 1.1.4. Environmental movements and environmental ethics

**1.2. Ecology**

- 1.2.1. Population characteristics and regulations
- 1.2.2. Community characteristics, regulation and succession
- 1.2.3. Ecosystem dynamics: energy flow, biogeochemical cycles
- 1.2.4. Terrestrial biomes and characteristics

**1.3. Environmental Geology**

- 1.3.1. Geological materials and structures
- 1.3.2. Weathering and erosion: types, cycle and control
- 1.3.3. Mass movement: causes and mechanisms
- 1.3.4. Fluvial, glacial and aeolian environmental processes

**1.4. Climatology and Hydrometeorology**

- 1.4.1. Horizontal and vertical temperature distribution
- 1.4.2. Mechanisms of wind development, air masses dynamics
- 1.4.3. Climatic systems, distribution and classifications
- 1.4.4. Floods: classification, causes, triggering factors

**1.5. Global Environmental Issues**

- 1.5.1. Global warming
- 1.5.2. Green economy
- 1.5.3. Global environmental issues
- 1.5.4. Payment for ecosystem services
- 1.5.5. Ozone layer depletion and acid rain

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### 2. ENVIRONMENTAL RESOURCES

5 Marks

#### 2.1. Water Resources

- 2.1.1. Water resources: sources, extent and assessment
- 2.1.2. Integrated Water Resource Management (IWRM)
- 2.1.3. Water resources of Nepal
- 2.1.4. Problems of water resource management in Nepal

#### 2.2. Food Resources

- 2.2.1. Major food resources and production
- 2.2.2. Human nutrition and health
- 2.2.3. Food resources of Nepal

#### 2.3. Energy Resources

- 2.3.1. Energy resources: sources and classification
- 2.3.2. Alternative energy resources
- 2.3.3. Environmental issues of energy use
- 2.3.4. Energy resource conservation practices

#### 2.4. Forest and Biodiversity

- 2.4.1. Forest types and biodiversity status of Nepal
- 2.4.2. Ex-situ and in-situ conservation
- 2.4.3. Biodiversity conservation approaches
- 2.4.4. Carbon sequestration

#### 2.5. Resource Economics

- 2.5.1. Micro-economic analysis for accounting environmental resources
- 2.5.2. Environmental Kuznets curve, cost benefit analysis and resource accounting
- 2.5.3. Economic and regulatory instruments to control pollution

### 3. ENVIRONMENTAL POLLUTION AND ENGINEERING

15 Marks

#### 3.1. Water Pollution

- 3.1.1. Point and non-point sources and categories of water pollutants
- 3.1.2. Water pollutants effect on human health and ecosystems
- 3.1.3. Groundwater contamination and its remediation
- 3.1.4. Standard methods of water analysis
- 3.1.5. Water and wastewater treatment technologies

#### 3.2. Air Pollution

- 3.2.1. Sources and categories of air pollutants
- 3.2.2. Emission, transport, receptors of air pollutants, criteria air pollutants
- 3.2.3. Air pollution effects on human health, property and visibility

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3.2.4. Air pollution measurement and emission estimates

3.2.5. Air pollution control technologies

### 3.3. Noise Pollution

3.3.1. Noise sources and criteria

3.3.2. Health effects of noise and control mechanisms

### 3.4. Waste Management

3.4.1. Sources, types and composition of solid wastes

3.4.2. Solid waste management systems

3.4.3. Causes, effects and control measures of urban and industrial wastes

3.4.4. Issue, generation and management of e-waste, hazardous and hospital waste

3.4.5. Issue, generation and management of Fecal Sludge waste in urban area

### 3.5. Toxicology and Eco-toxicology

3.5.1. Toxic Substances and Their Sources

3.5.2. Acute, sub-acute and chronic toxicity

3.5.3. Dose and frequency response relationships

3.5.4. Bioassays and attributes for predicting species response to pollution stress

3.5.5. Environmental Monitoring and Risk Assessment

### 3.6. Climate Change

3.6.1. Climate variability and theories of climate change

3.6.2. Climate models and model based projections of greenhouse effect

3.6.3. Climate change impacts: agriculture and food security, water resources, energy, human health, biodiversity, settlement and infrastructure and livelihood

3.6.4. Vulnerability assessment of climate change and mitigation and adaptation approaches (NAPA, LAPA).

## 4. ENVIRONMENTAL MANAGEMENT SYSTEMS

10 Marks

### 4.1. Environmental Assessment

4.1.1. Environmental assessment: evolution in global and national perspectives

4.1.2. Environmental assessment: process, practices, methods and tools

4.1.3. Strategic environmental assessment for decision making and integrated planning

### 4.2. Environmental Management Systems (EMS) & Modeling

4.2.1. Concept, components and stages of EMS

4.2.2. ISO 14000 series, standards and certification systems

4.2.3. Life cycle assessment and environmental labeling

4.2.4. Types and importance of environmental models

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### 4.3. Remote Sensing & GIS

- 4.3.1. Concept, scope and stages in remote sensing and GIS
- 4.3.2. Remote sensing image: acquisition, resolution, analysis and interpretation
- 4.3.3. GIS applications in assessing environmental studies (Environmental Management, Disaster Risk Management, Urban Environmental Planning, Climate Change)

### 4.4. Environmental Statistics

- 4.4.1. Sampling, data analysis and interpretation
- 4.4.2. Central tendency, measures of dispersion
- 4.4.3. Correlation and regression
- 4.4.4. Parametric and non-parametric tests

### 4.5. Environmental Governance

- 4.5.1. Institutional arrangement (organogram) and environmental governance; concerned stakeholders and networks
- 4.5.2. Governance tools and strategies
- 4.5.3. Adaptive management and sustainability

## 5. LEGAL FRAMEWORKS

10 Marks

### 5.1. Guidelines and Standards

Guidelines and Standards Relating to Water (drinking water), Air (Ambient, Indoor and Stack) and Water (Tolerance Limits for Industrial Effluents to be Discharged into Public Sewers and Inland Surface Waters); Specific Industrial Effluent Standards

### 5.2. Existing Legislations

Constitution of Nepal; Environmental Protection Act, 2076; Environment Protection Rules, 2077; Province Environmental Protection Act, 2077; Province Environment Protection Rules, 2077; National EIA Guidelines; EIA Guidelines for Forestry Sector; EIA Guidelines for Industry Sector; Plant Quarantine and Protection Act, 2064 ; National Parks and Wildlife Conservation Act, 2029; Water Resources Act, 2049; Forest Act, 2076; Province Forest Act, 2078; Soil and Watershed Management Act, 2039; Solid Waste Management Act, 2068; Pesticides Act; Pesticide Regulation; Hydropower Development Policy, 2058; Climate Change Policy, 2076; REDD strategy, 2018

### 5.3. International Treaties, Protocols & Conventions

Convention on Biological Diversity, 1992; United Nations Framework Convention on Climate Change, 1992; United National Convention to Combat Desertification, 1994; Kyoto Protocol, 1997; Vienna Convention for the Protection of the Ozone Layer, 1985; Montreal Protocol on Substances that Deplete Ozone Layer, 1987; Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal, 1989; Stockholm Convention on Persistent Organic Pollutants, 2004 , Sendai Framework for Disaster Risk Reduction 2015 – 2030, The 17 goals, Sustainable Development

## प्रदेश लोक सेवा आयोग, लुम्बिनी प्रदेश

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### 6. CURRENT ENVIRONMENTAL ISSUES

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#### 6.1. Urban Environment

- 6.1.1. Urbanization and its implications on environment (sanitation, solid and hazardous waste, air pollution, water pollution, groundwater depletion, food security)
- 6.1.2. Urbanization infrastructures and environment (housing, water supply and sanitation, waste management, transportation, electricity, markets and commercial areas, religious and heritage sites, open spaces and recreational areas)
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**द्वितीय पत्र (Paper II): Technical Subject (100 Marks)**

**Section A – 50 Marks**

**1. ENVIRONMENTAL FACETS**

**10 Marks**

**1.1. Environment: Concept, Scope and Practices**

- 1.1.1. Development of human society and environment
- 1.1.2. Physical, biological and socio-economic aspects of environment and their interrelationships
- 1.1.3. Environmental degradation and manifestations (land, water and air)
- 1.1.4. Environmental movements and environmental ethics

**1.2. Ecology**

- 1.2.1. Population characteristics and regulations
- 1.2.2. Community characteristics, regulation and succession
- 1.2.3. Ecosystem dynamics: energy flow, biogeochemical cycles
- 1.2.4. Terrestrial biomes and characteristics

**1.3. Environmental Geology**

- 1.3.1. Geological materials and structures
- 1.3.2. Weathering and erosion: types, cycle and control
- 1.3.3. Mass movement: causes and mechanisms
- 1.3.4. Fluvial, glacial and aeolian environmental processes

**1.4. Climatology and Hydrometeorology**

- 1.4.1. Horizontal and vertical temperature distribution
- 1.4.2. Mechanisms of wind development, air masses dynamics
- 1.4.3. Climatic systems, distribution and classifications
- 1.4.4. Floods: classification, causes, triggering factors

**1.5. Global Environmental Issues**

- 1.5.1. Global warming
- 1.5.2. Green economy
- 1.5.3. Global environmental issues
- 1.5.4. Payment for ecosystem services
- 1.5.5. Ozone layer depletion and acid rain

**2. ENVIRONMENTAL RESOURCES**

**15 Marks**

**2.1. Water Resources**

- 2.1.1. Water resources: sources, extent and assessment
- 2.1.2. Integrated Water Resource Management (IWRM)
- 2.1.3. Water resources of Nepal
- 2.1.4. Problems of water resource management in Nepal

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### 2.2. Food Resources

2.2.1. Major food resources and production

2.2.2. Human nutrition and health

2.2.3. Food resources of Nepal

### 2.3. Energy Resources

2.3.1. Energy resources: sources and classification

2.3.2. Alternative energy resources

2.3.3. Environmental issues of energy use

2.3.4. Energy resource conservation practices

### 2.4. Forest and Biodiversity

2.4.1. Forest types and biodiversity status of Nepal

2.4.2. Ex-situ and in-situ conservation

2.4.3. Biodiversity conservation approaches

2.4.4. Carbon sequestration

### 2.5. Resource Economics

2.5.1. Micro-economic analysis for accounting environmental resources

2.5.2. Environmental Kuznets curve, cost benefit analysis and resource accounting

2.5.3. Economic and regulatory instruments to control pollution

## 3. ENVIRONMENTAL POLLUTION AND ENGINEERING

25 Marks

### 3.1. Water Pollution

3.1.1. Point and non-point sources and categories of water pollutants

3.1.2. Water pollutants effect on human health and ecosystems

3.1.3. Groundwater contamination and its remediation

3.1.4. Standard methods of water quality analysis

3.1.5. Water, wastewater and fecal sludge treatment technologies

### 3.2. Air Pollution

3.2.1. Sources and categories of air pollutants

3.2.2. Emission, transport, receptors of air pollutants, criteria air pollutants

3.2.3. Air pollution effects on human health, property and visibility

3.2.4. Air pollution measurement and emission estimates

3.2.5. Air pollution control technologies

### 3.3. Noise Pollution

3.3.1. Noise sources and criteria

3.3.2. Health effects of noise and control mechanisms

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### 3.4. Waste Management

- 3.4.1. Sources, types and composition of solid waste
- 3.4.2. Solid waste management systems for Municipal waste
- 3.4.3. Issue, generation and management of e-waste, hazardous, construction and hospital waste
- 3.4.4. Management of industrial and agricultural chemical pesticides
- 3.4.5. Issue, generation and management of Fecal Sludge waste in urban area

### 3.5. Toxicology and Eco-toxicology

- 3.5.1. Toxic Substances and Their Sources
- 3.5.2. Acute, sub-acute and chronic toxicity
- 3.5.3. Dose and frequency response relationships
- 3.5.4. Bioassays and attributes for predicting species response to pollution stress
- 3.5.5. Environmental Monitoring and Risk Assessment

### 3.6. Climate Change

- 3.6.1. Climate variability and theories of climate change
- 3.6.2. Climate models and models based projections of greenhouse effect
- 3.6.3. Climate change impacts: agriculture and food security, water resources, energy, human health, biodiversity, settlement and infrastructure and livelihood
- 3.6.4. Vulnerability assessment of climate change and mitigation and adaptation approaches (NAPA, LAPA).

## Section B - 50 Marks

### 4. ENVIRONMENTAL MANAGEMENT SYSTEMS

20 Marks

#### 4.1. Environmental Assessment

- 4.1.1. Environmental assessment: evolution in global and national perspectives
- 4.1.2. Environmental assessment: process, practices, methods and tools
- 4.1.3. Strategic environmental assessment for decision making and integrated planning

#### 4.2. Environmental Management Systems (EMS) & Modeling

- 4.2.1. Concept, components and stages of EMS
- 4.2.2. ISO 14000 series, standards and certification systems
- 4.2.3. Life cycle assessment and environmental labeling
- 4.2.4. Types and importance of environmental models

#### 4.3. Remote Sensing & GIS

- 4.3.1. Concept, scope and stages in remote sensing and GIS
- 4.3.2. Remote sensing image: acquisition, resolution, analysis and interpretation
- 4.3.3. GIS applications in assessing environmental studies (Environmental Management, Disaster Risk Management, Urban Environmental Planning, Climate Change)

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### 4.4. Environmental Statistics

- 4.4.1. Sampling, data analysis and interpretation
- 4.4.2. Central tendency, measures of dispersion
- 4.4.3. Correlation and regression
- 4.4.4. Parametric and non-parametric tests

### 4.5. Environmental Governance

- 4.5.1. Institutional arrangement (organogram) and environmental governance; concerned stakeholders and networks
- 4.5.2. Governance tools and strategies
- 4.5.3. Adaptive management and sustainability

## 5. LEGAL FRAMEWORKS

15 Marks

### 5.1. Guidelines and Standards

Guidelines and Standards Relating to Air (Ambient, Indoor and Stack) and Water (Tolerance Limits for Industrial Effluents to be Discharged into Public Sewers and Inland Surface Waters); Specific Industrial Effluent Standards

### 5.2. Existing Legislations

Constitution of Nepal; Environmental Protection Act, 2076; Environment Protection Rules, 2077; Province Environmental Protection Act, 2077; Province Environment Protection Rules, 2077; National EIA Guidelines; EIA Guidelines for Forestry Sector; EIA Guidelines for Industry Sector; Plant Quarantine and Protection Act, 2064; National Parks and Wildlife Conservation Act, 2029; Water Resources Act, 2049; Forest Act, 2076; Province Forest Act, 2078; Soil and Watershed Management Act, 2039; Solid Waste Management Act, 2068; Pesticides Act; Pesticide Regulation; Hydropower Development Policy, 2058; Climate Change Policy, 2076; REDD strategy, 2018

### 5.3. 5.3 International Treaties, Protocols & Conventions

Convention on Biological Diversity, 1992; United Nations Framework Convention on Climate Change, 1992; United National Convention to Combat Desertification, 1994; Kyoto Protocol, 1997; Vienna Convention for the Protection of the Ozone Layer, 1985; Montreal Protocol on Substances that Deplete Ozone Layer, 1987; Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal, 1989; Stockholm Convention on Persistent Organic Pollutants, 2004

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- 6.1.2. Urban Climate and Environmental Hazards/Management (housing, water supply and sanitation, waste management, transportation, electricity, markets and commercial areas, religious and heritage sites, open spaces and recreational areas)
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इन्जिनियर पदहरूको खुला र अन्तरतह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र लिइने सामूहिक परीक्षण (Final Oral Exams) को लागि **सामूहिक छलफल (Group Discussion):**

यस प्रयोजनको लागि गरिने परीक्षणको पूर्णाङ्क १० र समय ३० मिनेटको हुनेछ जुन नेता विहिन सामूहिक छलफल (Leaderless Group Discussion) को रूपमा अवलम्बन गरिनेछ । दिइएको प्रश्न वा Topics का विषयमा पालैपालोसँग निर्दिष्ट समय भित्र समूह बीच छलफल गर्दै प्रत्येक उम्मेदवारले व्यक्तिगत प्रस्तुति (Individual Presentation) गर्नु पर्नेछ । यस परीक्षणमा मूल्याङ्कनको लागि देहाय अनुसारको समिति रहनेछ :

आयोगका अध्यक्ष वा सदस्य	-अध्यक्ष
आयोगका सदस्य	-सदस्य
दक्ष/विज्ञ (१ जना)	-सदस्य

### सामूहिक छलफलमा दिइने नमूना प्रश्न वा Topic

उदाहरणको लागि -उर्जा संकट, गरिबी निवारण, स्वास्थ्य बीमा, खाद्य सुरक्षा, प्रतिभा पलायन, वन क्षेत्रको अतिक्रमण, जलवायु परिवर्तन, जैविक विविधताको संरक्षण जस्ता Topic मध्ये कुनै एक Topic मात्र दिइनेछ ।