## नेपाल वन सेवाको जनरल फरेष्ट्री, नेशनल पार्क्स एण्ड वाइल्डलाइफ, फरेष्ट रिसर्च र स्वायल एण्ड वाटर कन्जरभेशन समूहका राजपत्राङ्कित तृतीय श्रेणीका पदहरुको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

प्रथम चरण:- लिखित परीक्षा (Written Examination)

पूर्णाङ्ग :- २००

द्वितीय चरण :- (क) सामूहिक परीक्षण (Group Test)

पूर्णाङ्ग :- १०

(ख) अन्तर्वार्ता(Interview)

पूर्णाङ्ग :- ३०

# परीक्षा योजना (Examination Scheme)

## प्रथम चरण : लिखित परीक्षा (Written Examination)

पूर्णाङ्क :- २००

पत्र	विषय	खण्ड	पूर्णाङ्क	उर्तीर्णाङ्क	परीक्ष	ना प्रणाली	प्रश्नसंख्या ×अङ्	समय
प्रथम	General Subject	Part I: General Awareness & General Reasoning Test Part II: General Technical Subject	900	80	वस्तुगत (Objective)	बहुवैकल्पिक प्रश्न (MCQs)	५० प्रश्न×१ अङ् ५०प्रश्न×१ अङ्	९ घण्टा ३० मिनेट
द्वितीय	Technical Subject		900	४०	विषयगत (Subjective)	छोटो उत्तर लामो उत्तर	४ प्रश्न x ५ अङ्क ८ प्रश्न x १०अङ्क	३ घण्टा

# द्वितीय चरण: सामूहिक परीक्षण (Group Test) र अन्तर्वार्ता (Interview)

पूर्णाङ्क :- ४०

पत्र ∕विषय	पूर्णाङ्ग	उर्तीर्णाङ्ग	परीक्षा प्रणाली	समय
सामूहिक परीक्षण (Group Test)	90		सामूहिक छलफल (Group Discussion)	३० मिनेट
अन्तर्वार्ता (Interview)	30		बोर्ड अन्तर्वार्ता(Board Interview)	-

### द्रष्टव्य :

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी द्वै हुनेछ ।
- २. प्रथमपत्र र द्वितीयपत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- ३. वस्तुगत बहुवैकित्पिक (Multiple Choice) प्रश्नहरुको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रितिशत अङ्ग कट्टा गिरनेछ । तर उत्तर निदएमा त्यस बापत अङ्ग दिइने छैन र अङ्ग कट्टा पिन गिरिने छैन ।
- ४. बहुवैकित्पिक प्रश्नहरु हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।
- ५. विषयगत प्रश्नहरुको हकमा तोकिएको अंकको एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुई भन्दा बढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरु (Short notes) सोध्न सिकने छ ।
- ६. द्वितीय पत्रमा (विषयगत प्रश्न हुनेका हकमा) प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरु हुनेछन् । परिक्षार्थीले प्रत्येक खण्डका प्रश्नहरुको उत्तर सोहीखण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- ७. यस पाठ्यक्रम योजना अन्तर्गतका पत्र विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापिन पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको मिति भन्दा ३ मिहना अगािड (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्कममा परेको सम्भनु पर्दछ ।
- ८. प्रथमचरणको परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र द्वितीयचरणको परीक्षामा सम्मिलित गराइनेछ ।
- ९. यस भन्दा अगाडि लागु भएका माथि उल्लेखित सेवा, समूहको पाठ्यक्रम खारेज गरिएको छ।
- १०. पाठ्यक्रम लाग् मिति : २०८०/०७/२०

नेपाल वन सेवाको जनरल फरेष्ट्री, नेशनल पार्क्स एण्ड वाइल्डलाइफ, फरेष्ट रिसर्च र स्वायल एण्ड वाटर कन्जरभेशन समूहका राजपत्राङ्कित तुतीय श्रेणीका पदहरुको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

## प्रथम पत्र (Paper I): General Subject

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

## 1. General Awareness and Contemporary Issues $(25 \times 1 \text{ Mark} = 25 \text{ Marks})$

- 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 periodical plan of Nepal
- 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 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, organisational structure, posts of service, fulfillment of vacancy and code of conduct
- 1.11 Functional scope of public services
- 1.12 Public Service Charter
- 1.13 Concept, objective and importance of public policy
- 1.14 Fundamentals of management : planning, organizing, directing, controlling, coordinating, decision making, motivation and leadership
- 1.15 Government planning, budgeting and accounting system
- 1.16 Major events and current affairs of national and international importance

### 2. General Reasoning Test

 $(25 \times 1 \text{ Mark} = 25 \text{ Marks})$ 

2.1 **Logical Reasoning**  $(9 \times 1 \text{ Mark} = 9 \text{ Marks})$ 

Verbal Ability, Alphanumeric Series, Reasoning Analogies, Classification, Coding-Decoding, Order & Ranking, Distance & Directions, Analytical and Logical Reasoning, Assertion and Reason, Statement and Conclusion, Input-Output, Venn-diagram

### 2.2 **Numerical Reasoning** ( $8 \times 1$ 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** $(8 \times 1 \text{ Mark} = 8 \text{ Marks})$

Figure Series, Figure Analogy, Figure Classification, Figure Matrix, Pattern Completion, Embedded Images, Image Formation & Analysis, Mirror and Water Images, Cubes and Dices, Paper Folding & Cutting

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## Part (B): - General Technical Subject (50 Marks)

1. Silviculture (5 Marks)

- 1.1 Common silvicultural terms
- 1.2 Forest types of Nepal
- 1.3 Concept and principle of forest ecosystem, normal forest and locality factors
- 1.4 Silvicultural practices adopted for the management of different categories of forests (e.g. community forests, collaborative forests, block forest, leasehold forests, religious forests, plantation forests, natural forests)
- 1.5 Seed collection, handling, storage and certification
- 1.6 Principles and practices of natural and artificial regeneration, various techniques of plant propagation, plantation establishment at different sites, types of tending operation and forest rotations
- 1.7 Principles and methods of tree improvement
- 1.8 Silviculture of commercial tree species of Nepal

# 2. Forest Management

(5 Marks)

- 2.1 Understanding about common forest management terms.
- 2.2 Principles and practices of management of different types of natural and manmade forests in general and in Nepal in particular
- 2.3 Principles and practices of tree and forest measurement; diameter and height measurement; volume calculation of standing trees, logs and converted timber; measurement of growing stock and yield regulation
- 2.4 Concepts and methods of timber stand improvement and shrubland management
- 2.5 Protection of forests from fire, grazing, illegal felling, disease and pest, forest encroachment and invasive species
- 2.6 Preparation and implementation of forest operational plan and forest management plans
- 2.7 Principles and methods of community based forest and natural resource management systems in Nepal
- 2.8 Contemprorary issues in Community, collaborative and leasehold forestry Methods and approaches to inventory of community forest and various NTFPs

### 3. Forestry Research

(5 Marks)

- 3.1 Concept and methods of experimental design (Blocking, replications, treatments, randomization)
- 3.2 Designs used in forestry experiments- Randomized block design, Split plot design, factorial designs
- 3.3 Statistical methods used in forestry research statistical parameters, F-test, t- test, analysis of variance, covariance analysis, correlation and regression.
- 3.4 Theory and principles of tree selection, progeny and provenance trial
- 3.5 Tools and techniques of socio-economic surveys PRA, RRA, D&D
- 3.6 Preparation of simple experimental protocols for forestry research
- 3.7 Theory and skills in review of literature, field data collection, analysis, report writing and referencing

### 4. Forest resource surveying and mapping

(5 Marks)

4.1 Forest statistics of Nepal

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- 4.2 Principles and methods of forest sampling—size, intensity, unit, simple random sampling, stratified random sampling, systematic sampling
- 4.3 Principles of forest biometrics, tree and forest growth models, volume and yield tables
- 4.4 Principles, tools and techniques used in Remote Sensing, GIS and photo interpretation
- 4.5 Use of surveying and mapping instruments and preparation of forest maps
- 4.6 Theory and practice of National Forest Inventory and role of ground verification

## 5. Soil Conservation (5 Marks)

- 5.1 Soil types, formation and profile, physical and chemical properties and classification
- 5.2 Land use and land capability classification
- 5.3 Concept of hydrological cycle
- 5.4 Types of soil erosions and their preventive and control measures
- 5.5 Soil and water conservation structures breast walls, retention wall, check dams, ponds, slope stabilization, methods of top soil cover, roadside stabilization
- 5.6 Bioengineering, Soil fertility and indigenous soil fertility management practices in Nepal
- 5.7 Concepts and basics of soil loss assessment and soil analysis

## 6. Watershed management

(5 Marks)

- 6.1 Concept and approaches to sustainable watershed management
- 6.2 Identification, planning and management of micro and macro watershed areas
- 6.3 Interrelationship between forestry, agriculture, livestock and development & infrastructure activities with respect to integrated watershed management
- 6.4 Early warning and prevention from natural hazards, measuring water discharge, water quality analysis and checking water runoff and erosions.
- 6.5 Concept and approaches to water harvesting and conservation farming
- 6.6 Agroforestry systems and practices in Nepal. Criteria for selection of fuelwood, fodder, bamboo and other NTFP species and their production techniques for rural income and employment for poverty reduction
- 6.7 Participatory approaches to soil and watershed management

## 7. Planning and management of National Parks and Protected Areas (5 Marks)

- 7.1 Concepts, approaches and evolution in Protected Area management systems
- 7.2 Status and classification of Protected Areas in Nepal (National Park, Conservation Area, Hunting reserves, Wildlife Reserve, Buffer Zone)
- 7.3 Preparation and implementation of management plans for different types of Protected Areas. Principles and practice of eco-tourism, visitors' management, conflict resolution and monitoring of Protected Areas and wildlife census
- 7.4 Conservation education, motivation, communication, exhibition and public relations
- 7.5 Fundamentals of ecosystems (population ecology, population density, carrying capacity, population census, predation, reintroduction and relocation)

## 8. Management of specific habitat and biodiversity conservation (5 Marks)

- 8.1 Landscape level conservation and ecosystem services
- 8.2 Approaches for in-situ and ex-situ biodiversity conservationat ecosystem, species and genetic level

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- 8.3 Geographical distribution, habitat and behavior of common and endangered wild mammals, birds, reptiles, insects and fish in Nepal.
- 8.4 Types of wildlife habitats, habitat analysis and management techniques
- 8.5 General understanding about IUCN red list, Environmental Impact Assessment (including IEE)
- 8.6 Strategy and Action Plans for the management of rare and endangered wildlife species of Nepal (including Tiger, Rhino, Elephant, Snow leopard, Pangolin, Red Panda, Gharial)

### 9. Forest Utilisation

(5 Marks)

- 9.1 Non-timber forest products of economic importance in Nepal
- 9.2 Forest based industries in Nepal
- 9.3 Management, collection, processing and marketing of high value NTFPs in Nepal, value chain of high value wood and non wood products
- 9.4 Role and function of private sector, cooperatives and parastal institutions
- 9.5 Scope and potential role of different forest products in poverty reduction

## 10. Current Forestry Sector Policy, Strategy, Acts and Regulations (5 Marks)

- 10.1 Forest Act, 2076 and Regulation, 2077
- 10.2 Buffer Zone Management Regulations, 2052
- 10.3 Environment Protection Act, 2076 and Regulation, 2077
- 10.4 Soil and Water Conservation Act, 2039
- 10.5 National Parks and Wildlife Conservation Act and Regulation
- 10.6 National Biodiversity Strategy and Action Plan, 2014
- 10.7 National Forest Policy, 2075 and Forest Sector Strategy, 2072
- 10.8 REDD strategy, 2018
- 10.9 Climate Change Policy, 2076 (2019)
- 10.10 National Adaptation Plan of Action, 2010
- 10.11 Nationally Determined Contributions, 2016
- 10.12 CITES Act, 2073
- 10.13 Wetland Policy, 2069