देवदह नगरपालिका



नगर कार्यपालिकाको कार्यालय

केरता नी पर्याप्ट ही लुम्बिसी स्टेंग नेपाल भूग स्टेंग स्टेंग स्टेंग २००३

"समृद्धिका लागि वन कार्यक्रम" का लागि

Technical Specialist (forestry & enterprise) पदको प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

पाठ्यक्रमको रुपरेखाः- यस पाठ्यक्रमको आधारमा निम्नानुसार चरणमा परीक्षा लिइने छ ।

लिखित परीक्षा

पुर्णाङ्कः- १००

लिखित परीक्षा योजना (Written Examination Scheme)

विषय	परीक्षा प्रणाली		परीक्षा प्रणाली	पूर्णाङ्क	उत्तीर्णाङ्क	प्रश्न संख्या ×	समय
						अङ्क	
General Subject	वस्तुगत (Objective)	बहुवैकल्पिक प्रश्न (MCQs)	Part I: General Awareeness & General Ability Test	900	80	५०×१ अङ्ग=५०	१ घण्टा ३०
			Part II: General Technical Subject			५०×१ अङ्ग=५०	मिनेट

द्रष्टव्यः-

- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरुको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत
 अङ्क कट्टा गरिनेछ । तर उत्तर निदएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पिन गरिने छैन।
- २. यस पाठ्यक्रम योजना अन्तर्गत पत्र/ विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापिन पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगािड संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई कायम रहेकालाई यस पाठ्यक्रममा परेको समझनु पर्दछ।
- ३. परीक्षामा परीक्षार्थीले मोबाइल वा यस्तै प्रकारका विद्युतीय उपकरण परीक्षा हलमा लैजान पाइने छैन।
- ४. लिखित परीक्षामा उत्तीर्ण मध्ये सबै भन्दा बढी अंक ल्याउने उम्मेदवारलाई करार सेवा नियुक्तिको लागि सिफारिस गरिनेछ । तर सबै भन्दा बढी बराबर अंक ल्याउने उम्मेदवार एक भन्दा बढी भएमा तोकिएको न्यूनतम शैक्षिक योग्यताको प्राप्त प्रतिशतलाई आधार मानि उम्मेदवारलाई नियुक्तिको लागि सिफारिस गरिनेछ।
- ५. न्यूनतम शैक्षिक योग्यताको प्राप्ताङ्क CGPA मा लब्धांक हुनेहरुको हकमा तपशिल बमोजिमको सुत्रमा आधारित रहि प्रतिशत निर्धारण गरिनेछ ।

६. न्यूनतम शैक्षिक योग्यताको प्राप्ताङ्क प्रतिशत पनि बराबर भएमा उमेरको आधारमा जेष्ठ उम्मेदवार नियुक्तिको लागि सिफारिस गरिनेछ ।

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

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- Notable events and personalities, social, cultural and economic conditions in modern 1.4 history of Nepal
- 1.5 Current periodical plan of Nepal
- Information sustainable development, 1.6 on environment, pollution, climate change, biodiversity, science and technology
- Nepal's international affairs and general information on the UNO, SAARC & BIMSTEC 1.7
- 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, organizational 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 Ability Test $(25 \times 1 \text{ Mark} = 25 \text{ Marks})$

2.1 **Verbal Ability Test** (8×1 Mark= 8 Marks)

Jumble words, Series, Analogy, Classification, Coding-Decoding, Matrix, Ranking Order Test, Direction and Distance Sense Test, Common Sense Test, Logical Reasoning, Assertion and Reason, Statement and Conclusions

2.2 Numerical Ability Test $(9 \times 1 \text{ Mark} = 9 \text{Marks})$

Series, Analogy, Classification, Coding, Arithmetical reasoning/operation, Percentage, Ratio, Average, Loss & Profit, Time & Work, Data interpretation & Data verification

2.3 Non-verbal/Abstract Ability Test (8×1 Mark = 8 Marks)

Figure Series, Figure Analogy, Figure Classification, Figure Matrix, Pattern Completion/ Finding, Analytical Reasoning Test, Figure Formation and Analysis, Rule Detection, Water images, Mirror images, Cubes and Dice & Venn-diagram

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
- 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)
- Seed collection, handling, storage and certification 1.5
- 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
- Principles and methods of tree improvement 1.7
- Silviculture of commercial tree species of Nepal

2. Forest Management (5 Marks)

Understanding about common forest management terms.

Principles and practices of management of different types of natural and manmade forests 2.2 in general and in Nepal in particular रसेश सिरी

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- 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
- 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

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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
- 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
- 10.2 Buffer Zone Management Regulations, 2052
- 10.3 Environment Protection Act, 2076 and Regulation
- 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

