

प्रदेश लोक सेवा आयोग, कर्णाली प्रदेश
प्रदेश निजामती सेवाको वन सेवा, जनरल फरेष्ट्री, फरेष्ट्र रिसर्च र स्वायल एण्ड वाटर कन्जरभेसन समूह,
सहायकस्तर पाँचौं तह, रेञ्जर र जलाधार संरक्षण सहायक वा सो सरह पदको खुला प्रतियोगितात्मक लिखित
परीक्षाको पाठ्यक्रम र परीक्षा योजना

पाठ्यक्रमको रूपरेखा: संयुक्त र एकीकृत परीक्षा प्रणाली (Unified and Integrated Examination System) को आधारमा सञ्चालन हुने यस पाठ्यक्रम योजनालाई तीन चरणमा विभाजन गरिएको छ।

परीक्षाको चरण	परीक्षाको किसिम	पूर्णाङ्क
प्रथम चरण	लिखित परीक्षा (Written Examination)	२००
अन्तिम चरण	कम्प्युटर सीप परीक्षण (Computer Skill Test)	१०
	अन्तर्वार्ता (Interview)	३०

परीक्षा योजना (Examination Scheme)

१. प्रथम चरण: लिखित परीक्षा (Written Examination)

पूर्णाङ्क: २००

पत्र	विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली		प्रश्नसंख्याxअङ्क	समय
प्रथम	सामान्य ज्ञान र सार्वजनिक व्यवस्थापन (General awareness & Public management)	१००	४०	वस्तुगत (Objective)	बहुवैकल्पिक प्रश्न (MCQs)	२०x२=४०	४५ मिनेट
	सेवा सम्बन्धी ज्ञान (Service Based knowledge)					३०x२=६०	
द्वितीय	प्राविधिक विषय (Technical Subject)	१००	४०	विषयगत (Subjective)	छोटो उत्तर लामो उत्तर	१२x५=६० ४x१०=४०	२ घण्टा १५ मिनेट

२. अन्तिम चरण: कम्प्युटर सीप परीक्षण र अन्तर्वार्ता

पूर्णाङ्क: ४०

पत्र/विषय	पूर्णाङ्क	परीक्षा प्रणाली
कम्प्युटर सीप परीक्षण (Computer Skill test)	१०	प्रयोगात्मक (Practical)
अन्तर्वार्ता (Interview)	३०	मौखिक (Oral)

द्रष्टव्य:

- यस पाठ्यक्रम योजनालाई प्रथम चरण र अन्तिम चरण गरी दुई चरणमा विभाजन गरिएको छ।
- प्रश्नपत्रको भाषा नेपाली वा अङ्ग्रेजी वा नेपाली र अङ्ग्रेजी दुवै हुन सक्नेछ।

३. परीक्षाको भाषा नेपाली वा अङ्ग्रेजी अथवा नेपाली र अङ्ग्रेजी दुवै हुन सक्नेछ।
४. खुला र समावेशी समूहको एउटै प्रश्नपत्रबाट परीक्षा सञ्चालन हुनेछ।
५. प्रथम पत्र र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ। दुवैपत्रको परीक्षा एकैदिनमा वा छुट्टाछुट्टै दिनमा लिन सकिनेछ।
६. वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ। तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन।
७. बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा मोबाईल फोन, स्मार्ट वाच, क्याल्कुलेटर जस्ता सामग्रीहरू प्रयोग गर्न पाइने छैन।
८. विषयगत प्रश्नहरूको हकमा तोकिएको अङ्कमा 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 टिप्पणीहरू (Short notes) सोध्न सकिनेछ।
९. परीक्षामा सोधिने प्रश्नसंख्या, अङ्क र अङ्कभार यथासम्भव सम्बन्धित पत्र/विषयमा दिईए अनुसार हुनेछ।
१०. विषयगत प्रश्न हुने पत्र/विषयका प्रत्येक भाग/खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन्। परीक्षार्थीले प्रत्येक भाग/खण्डका प्रश्नहरूको उत्तर सोही भाग/खण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ।
११. यस पाठ्यक्रम अनुसारका पत्र/विषयका विषयवस्तुमा जुनसुकै कुरा लेखिएको भएतापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगावै संशोधन भई कायम रहेका विषयवस्तुलाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ।
१२. प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र अन्तिम चरणको कम्प्युटर सीप परीक्षण र अन्तर्वार्तामा सम्मिलित गराइनेछ।
१३. प्रथम चरणको लिखित परीक्षाको प्राप्ताङ्क र अन्तिम चरणको कम्प्युटर सीप परीक्षण र अन्तर्वार्ताको प्राप्ताङ्कको आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ।
१४. यस भन्दा अगाडि लागू गरिएको माथि उल्लेखित सेवा, समूहको पाठ्यक्रम खारेज गरिएको छ।
१५. पाठ्यक्रम अध्यावधिक भई लागू हुने मिति: २०८१।१०।२९

प्रदेश लोक सेवा आयोग, कर्णाली प्रदेश
प्रदेश निजामती सेवाको वन सेवा, जनरल फरेष्ट्री, फरेष्ट्र रिसर्च र स्वायल एण्ड वाटर कन्जरभेसन समूह,
सहायकस्तर पाँचौं तह, रेञ्जर र जलाधार संरक्षण सहायक वा सो सरह पदको खुला प्रतियोगितात्मक लिखित
परीक्षाको पाठ्यक्रम

प्रथम पत्र (Paper I): सामान्य ज्ञान र सार्वजनिक व्यवस्थापन तथा सेवा सम्बन्धी ज्ञान

भाग (Part I):

सामान्य ज्ञान र सार्वजनिक व्यवस्थापन

(General awareness & Public management)

Section -A

(१० प्रश्न × २ अङ्क = २० अङ्क)

१. सामान्य ज्ञान (General Awareness)

- १.१. नेपालको भौगोलिक अवस्था, प्राकृतिक स्रोत र साधनहरू
- १.२. कर्णाली प्रदेशको ऐतिहासिक, सांस्कृतिक र सामाजिक अवस्था सम्बन्धी जानकारी
- १.३. कर्णाली प्रदेशको आर्थिक अवस्था र चालु आवधिक योजना सम्बन्धी जानकारी
- १.४. मानव जीवनमा प्रत्यक्ष प्रभाव पार्ने विज्ञान र प्रविधिका महत्त्वपूर्ण उपलब्धिहरू
- १.५. जैविक विविधता, दिगो विकास, वातावरण प्रदूषण, जलवायु परिवर्तन र जनसङ्ख्या व्यवस्थापन
- १.६. नेपालको संविधान (भाग १ देखि भाग ५ सम्म र अनुसूचीहरू)
- १.७. संघ, प्रदेश र स्थानीय तहको शासन व्यवस्था सम्बन्धी जानकारी
- १.८. संयुक्त राष्ट्र संघ, सार्क, बिमस्टेक सम्बन्धी जानकारी
- १.९. राष्ट्रिय तथा अन्तर्राष्ट्रिय महत्त्वका समसामयिक गतिविधिहरू

Section –B

(१० प्रश्न × २ अङ्क = २० अङ्क)

२. सार्वजनिक व्यवस्थापन (Public management)

- २.१. कार्यालय व्यवस्थापन
 - २.१.१ कार्यालय: परिचय, महत्त्व, कार्य र प्रकार
 - २.१.२ सहायक कर्मचारीका कार्य र गुणहरू
 - २.१.३ कार्यालय स्रोत साधन: परिचय र प्रकार
 - २.१.४ कार्यालयमा सञ्चारको महत्त्व, किसिम र साधन
 - २.१.५ कार्यालय कार्यविधि: पत्र व्यवहार, दर्ता र चलानी, फाइलिङ, परिपत्र, तोक आदेश, टिप्पणी लेखन
 - २.१.६ अभिलेख व्यवस्थापन
- २.२. प्रदेश निजामती सेवा ऐनमा भएका व्यवस्थाहरू
 - २.२.१ निजामती सेवाको गठन, संगठन संरचना, पदपूर्ति गर्ने तरिका र प्रक्रियाहरू
 - २.२.२ कर्मचारीको नियुक्ति, सरुवा, वदुवा, बिदा, विभागीय सजाय र अवकाश
 - २.२.३ कर्मचारीले पालना गर्नुपर्ने आचरण, नैतिक दायित्व र कर्तव्यहरू
- २.३. सार्वजनिक सेवा प्रवाहको अर्थ, सेवा प्रवाह गर्ने निकाय, तरिका र माध्यमहरू
- २.४. मानव अधिकार, सुशासन र सूचनाको हक सम्बन्धी सामान्य जानकारी
- २.५. सार्वजनिक वडापत्र
- २.६. कानूनी शासन र कर्मचारीतन्त्र

भाग (Part II):

सेवा सम्बन्धी ज्ञान (Service Based knowledge) (३० प्रश्न×२अङ्क= ६० अङ्क)

1. General

- 1.1. Introduction to forestry organization in Nepal and Karnali province
- 1.2. General introduction to different guidelines related to user group mobilization and forest management
- 1.3. Land use in Nepal
- 1.4. Vegetation types of Nepal
- 1.5. Distribution of various Forest types in Nepal
- 1.6. Forest related Karnali province plan and policies
- 1.7. General introduction to deforestation, forests degradation in Nepal
- 1.8. Major watersheds in Karnali province and Nepal
- 1.9. Drawing, design and cost estimation in reference to forest norms and district rate
- 1.10. Forest resources information of Karnali province and Nepal
- 1.11. Protected areas located in Karnali province and its management system

2. Silviculture

- 2.1. Silviculture and silvics
- 2.2. Locality factors: climatic, edaphic, topographic and biotic.
- 2.3. Plant succession
- 2.4. Silviculture systems (Clear felling, shelter wood, selection, coppice)
- 2.5. Silviculture of indigenous tree species of Nepal and Karnali province (Sal, Sissoo, Khote sallo, Khair, Utis, Deodar, Gobre sallo, Chilaune, Katus, Saj, Simal, Loth salla, Thigure salla, Rittha, Lapsi, Tejpatta, Okhar)
- 2.6. Silviculture of exotic species (Teak, *Eucalyptus*, *Pinus patula*, Poplar)

3. Forest Management

- 3.1. High forest
 - 3.1.1. Silvicultural operation
 - 3.1.2. Protection
 - 3.1.3. Harvesting and distribution
- 3.2. Plantation Forest
 - 3.2.1. Seed Collection, treatment and storage techniques of commonly planted tree species in Nepal.
 - 3.2.2. Nursery techniques of commonly planted tree and bio-engineering species in Nepal.
 - 3.2.3. Nursery practices (Criteria for nursery site selection, Nursery construction, Seed bank preparation (sunken and raised), Seed treatment, Seedling production (container, bare, stumps), Protection and maintenance of seedlings, manuring and fertilization, Nursery equipment and tools, Other seedling production methods)
 - 3.2.4. Plantation techniques of commonly planted tree species in Nepal.
 - 3.2.5. Plantation management, including management of private trees on farm land (thinning, pruning, lopping, pollarding, coppicing, weeding, singling, clearing)
- 3.3. Harvesting and distribution systems for major forest products in Karnali province and Nepal
- 3.4. Harvesting and distribution systems of non-woody forest products
- 3.5. Forest management practices (community, leasehold, collaborative, forest conservation area, private, government managed, religious forest)
- 3.6. Agencies involved in harvesting and distribution of forest products in Nepal
- 3.7. Introduction to wood seasoning and preservation
- 3.8. Forest management system in Karnali province

4. Forest Mensuration

- 4.1. Measurement of standing trees
- 4.2. Measurement of felled trees
- 4.3. Volume calculation methods
- 4.4. Volume table, yield table, biomass table
- 4.5. Tree basal area and volume measurement
- 4.6. Calculation of basal area, volume and biomass of standing and felled trees
- 4.7. Estimation of growing stock in per unit area
- 4.8. forest growth (MAI and CAI)

5. Forest Survey and Inventory

- 5.1. Fundamental concepts, definition and techniques of survey and inventory, their applications in forest management.
- 5.2. Different types of forest survey
- 5.3. Forest sampling methods (Random, Stratified and Systematic), techniques (Shape, Size and number of sample plots) and sampling intensity
- 5.4. GPS and GIS application in forest survey and inventory

6. Laws and bylaws

- 6.1. Forest laws and bylaws
- 6.2. National Park and Wildlife conservation laws and bylaws
- 6.3. Soil conservation and watershed management laws and bylaws
- 6.4. CITES laws and bylaws
- 6.5. investigation of forest offences and filing cases against forest offenders
- 6.6. Karnali Province Civil Service Act, 2080 and Regulations, 2080 (Conduct, punishment and leave)
- 6.7. Environment protection Act, 2076 and Environment protection Regulation, 2077
- 6.8. Environment protection Act, 2077 and Environment protection Regulation, 2077 of Karnali province
- 6.9. Local Government Operation Act, 2074 (Service related)

7. Wildlife management

- 7.1. National parks, wildlife reserves, hunting and conservation areas in Nepal
- 7.2. Rare and endangered wildlife in Nepal
- 7.3. Rules governing wildlife hunting or fishing outside the protected areas but within the national forest area
- 7.4. Standards for Commercial Farming, Breeding and Use of Wildlife, 2080
- 7.5. Human wild life conflict management
- 7.6. Management practices (Protected area management, Park management, Buffer zone management, Eco-tourism management, Recreational management, Human dimension, Visitor management)

8. Soil conservation and watershed management in Nepal

- 8.1. Concept of basin, watershed/sub watersheds and major watersheds of Karnali province.
 - 8.1.1. Watershed delineation and mapping
 - 8.1.2. prioritization
 - 8.1.3. Management plan preparation
- 8.2. Soil erosion, landslides, flooding and their consequences,
 - 8.2.1. Definition, types and causes of soil erosion
 - 8.2.2. Factors affecting soil erosion
 - 8.2.3. Consequences of soil erosion (gully formation, landslides, siltation of lakes)
- 8.3. soil conservation measures applicable in Karnali province

- 8.3.1. Physical measures (check-dam, retaining wall, diversion cannel, terraces, embankment)
- 8.3.2. Biological measures (plantation and seedling, grazing and rotation grazing, cropping pattern)
- 8.4. Surveying and design considerations of soil conservation structures
- 8.5. Bioengineering applications for soil and water conservation and site suitability for different bioengineering species in different localities of Karnali province.
- 9. Medicinal and Aromatic Plant
 - 9.1. Important Plant species of medicinal and/or aromatic use value and their identification
 - 9.2. Medicinal and/or aromatic Plant species restricted to export in crude form from Nepal
 - 9.3. Endemic/Endangered/Extinct/Economic valued plants
 - 9.4. CITES plants
 - 9.5. Ethno botany
 - 9.6. NTFPs and Value chain
 - 9.7. NTFPs from Karnali province (Yarsagumba, Jattamasi, Timur, Panch Aule)
- 10. Agro forestry
 - 10.1. Farm based agro forestry system
 - 10.2. Forest based agro forestry system
 - 10.3. Agro forestry applicable to Karnali province

प्रथम पत्रको Part II सेवा सम्बन्धी ज्ञान (Service Based knowledge) विषयका एकाईहरूबाट यथासम्भव निम्नानुसार बस्तुगत प्रश्नहरू सोधिनेछ।

Unit	1	2	3	4	5	6	7	8	9	10
Questions	5	3	5	2	2	3	3	3	2	2

प्रदेश लोक सेवा आयोग, कर्णाली प्रदेश
प्रदेश निजामती सेवाको वन सेवा, जनरल फरेष्ट्री, फरेष्ट्र रिसर्च र स्वायल एण्ड वाटर कन्जरभेसन समूह,
सहायकस्तर पाँचौं तह, रेञ्जर र जलाधार संरक्षण सहायक वा सो सरह पदको खुला प्रतियोगितात्मक लिखित
परीक्षाको पाठ्यक्रम

द्वितीयपत्र: प्राविधिक विषय (Technical Subject)

(Section –A)

50 Marks

1. Principle and Practice of Silviculture

- 1.1. General concept of Silviculture
- 1.2. Common silvicultural terms
- 1.3. Locality factors affecting forest and vegetation
- 1.4. Silvicultural systems (focusing on Clear felling, Shelter wood, Coppice and Selection systems and their variants)
- 1.5. Silviculture of major forest tree species (e.g. Sal, Sissoo, Khotesalla, Khair, Utis, Deodar, Gobresalla, Chilaune, Katus, Saj, Simal, Champ, Abis species)
- 1.6. Silviculture of exotic species (e.g. Teak, Eucalyptus, *Pinus patula*, Poplar)
- 1.7. Silviculture of commercial NTFP species
- 1.8. Silvicultural systems applied in different types of forests of Nepal
- 1.9. Protection of forest from insect, pest, diseases and pathogens

2. Forest Management

- 2.1. History of forest management in Nepal
- 2.2. High forest
 - 2.2.1. Silvicultural operations in high forest system
 - 2.2.2. Tending operations
- 2.3. Plantation Forest
 - 2.3.1. Understanding of forest nursery
 - 2.3.2. Seed collection, treatment and storage techniques of commonly planted tree species in Nepal.
 - 2.3.3. Nursery techniques of commonly planted tree species in Nepal.
 - 2.3.4. Plantation techniques of commonly planted tree species in Nepal.
 - 2.3.5. Plantation management (e.g. weeding, cleaning, thinning, pruning, lopping, pollarding) Plantation forest in Nepal (e.g. Sagarnath, Ratuwamai)
- 2.4. Harvesting and distribution systems of forest products in Nepal (e.g. construction wood, fire wood etc.)
- 2.5. Harvesting system and procedures in government management and community managed forest
- 2.6. Harvesting tools and techniques in Nepal
- 2.7. Harvesting and distribution systems of non-woody forest products (e.g. Medicinal and aromatic plants, Sal seed and Resin collection)
- 2.8. Agencies involved in harvesting and distribution of forest products in Nepal.
- 2.9. Forest management practices and emerging problems in Terai, Midhills and High Himalayas
- 2.10. Role of forest ranger in forest and biodiversity conservation and management
- 2.11. Management of forest fire and application of integrated pest management in forestry
- 2.12. Forest encroachment and its management

3. Forest Mensuration

- 3.1. Measurement of standing trees.
- 3.2. Measurement of felled trees and logs
- 3.3. Concept on volume table and yield table.

- 3.4. Calculation of tree volume by different methods, tree basal area, volume of stacked woods and biomass.
4. Forest Survey and Inventory
 - 4.1. Concept of forest survey and its use in forest management
 - 4.2. Compass survey and general concept of leveling
 - 4.3. Instrument used for forest survey and inventory in Nepal
 - 4.4. Use of GPS for forest survey
 - 4.5. Concept of forest inventory
 - 4.6. Sampling and its types
 - 4.7. General information on various Forest Resource Assessments in Nepal
 - 4.8. Introduction to Geographical Information System and remote sensing
 - 4.9. Use of GIS and remote sensing in natural resources management
5. Policy, Acts and Regulation
 - 5.1. National Forest Policy, 2075
 - 5.2. Forestry Sector Strategy (2016-2025)
 - 5.3. Forest act, 2076 and Forest regulations
 - 5.4. Karnali Province Forest Act, 2078 and regulations, 2080
 - 5.5. Soil conservation and watershed management act, 2039
 - 5.6. National Park and Wildlife conservation act 2029 and regulation
 - 5.7. Karnali Province Civil Service Act, 2080 and Regulations, 2080 (Conduct, punishment and leave)
 - 5.8. Environment protection Act, 2076 and Environment protection Regulation, 2077
 - 5.9. Environment protection Act, 2077 and Environment protection Regulation, 2077 of Karnali province
 - 5.10. Local Government Operation Act, 2074
 - 5.11. Salient features of forest product sales and distribution guidelines
 - 5.12. Community Forestry Inventory Guideline
 - 5.13. Understanding of NTFP Inventory Guideline
 - 5.14. Community Forestry Guidelines
6. Forest Researches in Nepal
 - 6.1. General concept of forest research
 - 6.2. Some example of forest researches conducted by the department of forest research and survey of Nepal
 - 6.3. Importance of forestry research in Nepal
7. Forest Extension
 - 7.1. Concept of forest extension
 - 7.2. Need and importance of extension in forest management, biodiversity conservation and watershed management
 - 7.3. Mode of forestry extension in Nepal
 - 7.4. Extension activities adopted by ongoing community and private forestry development projects.
8. Wildlife and Protected Area Management
 - 8.1. Rare and endangered wildlife in Nepal
 - 8.2. Geographical distribution, habitat and behavior of common, rare and endangered wild mammals, birds and reptiles in Nepal.
 - 8.3. National Parks, wildlife Reserves, Conservation areas and buffer zones in Nepal.
 - 8.4. Management practices (Protected area management, Park management, Buffer zone management, Eco-tourism management, Recreational management, Human dimension, Visitor management)

- 8.5. Understanding on wildlife hunting and fishing
- 8.6. Standards for Commercial Farming, Breeding and Use of Wildlife, 2080
- 8.7. Human wildlife conflict management
- 8.8. Guidelines for Distribution of Relief against Wildlife Damage, 2080
- 8.9. Internationally important wetlands in Nepal and their significance
9. Biodiversity Conservation and Management in Nepal
 - 9.1. Concept and significance of biological diversity
 - 9.2. Status of biodiversity in Nepal
 - 9.3. Challenges, opportunity and threats for conservation of biodiversity in Nepal
 - 9.4. Approaches for biodiversity conservation in Nepal
 - 9.5. In situ and ex situ conservation in Nepal

(Section-B)

50 Marks

10. Soil Conservation and Watershed Management

- 10.1. Concept of soil and watershed
- 10.2. Physical and chemical properties of soil
- 10.3. Soil erosion and its types
- 10.4. Problem of soil erosion in Nepal
- 10.5. Soil conservation watershed management practices in Nepal
- 10.6. Hydrological cycle and its importance in soil conservation and watershed management
- 10.7. Concept of integrated watershed management
- 10.8. Institutions for soil conservation and watershed management in Nepal
- 10.9. Techniques of soil conservation
- 10.10. Concept of bioengineering
- 10.11. Low-cost soil conservation techniques and their application for soil conservation
- 10.12. General situation of soil conservation and watershed management in Nepal.

11. Non Timber Forest Products (NTFPs) and Medicinal and Aromatic Plants (MAPs)

- 11.1. Important NTFPs and medicinal and aromatic plants of Nepal
- 11.2. Identification, use and value addition of important NTFPs and medicinal and aromatic plants
- 11.3. Current practice of harvesting of NTFPs and MAPs in Nepal.
- 11.4. NTFPs and MAPs restricted for collection and export in crude form.
- 11.5. NTFP/MAP based income generation activities in Nepal
- 11.6. Forest based industries in Nepal
- 11.7. Management, collection, processing and marketing of high value NTFPs in Nepal,
- 11.8. Value chain of major NTFPs and MAPs in Nepal

12. Community-Based Forest Management (CBFM) in Nepal

- 12.1. Concept of community-based forest management
- 12.2. Various types of CBFM model like community forest, collaborative forest, buffer zone community forest and leasehold forest (both pro-poor and commercial)
- 12.3. Challenges and opportunities of CBFM in Nepal
- 12.4. Provisions related to CBFM in Forest Act, National Park and Wildlife Conservation Act

13. Forest Administration in Nepal

- 13.1. General information on government institution involved in forest management, biodiversity conservation and watershed management in Nepal (DoFSC, DNPWC)
- 13.2. General information on province level forestry sector structure and organization
- 13.3. General concept of legal procedures and preparation of legal documents like pratibedan, sarjamin muchulka, bharpai and tippani

14. Agroforestry and Private Forestry

14.1. Concept and importance of agroforestry and private forestry

14.2. Species selection criteria and various species used for agroforestry and private forestry in Nepal

14.3. Role of agroforestry and private forestry in forest and biodiversity conservation

15. Cross cutting Areas in Forestry, Biodiversity Conservation and Watershed Management

15.1. Concept of climate change and REDD, REDD+ in Nepal

15.2. Practice of good governance in natural resource conservation and management

15.3. Participatory watershed management in Nepal

15.4. Major projects and donor agencies involved in forestry development in Nepal.

15.5. Forest parastatals in Nepal focusing on Ban Nigam, Forest Product Development Board and District Forest Product Supply Committee

15.6. Land use and land cover in Karnali province and Nepal

15.7. Vegetation and forest types of Karnali province and Nepal

15.8. Understanding of ecosystems of Nepal

15.9. General concept of agro-ecological zone

द्वितीयपत्रको प्रश्न तालिका

द्वितीयपत्रको एकाईहरूबाट यथासम्भव निम्नानुसार विषयगत प्रश्नहरू सोधिनेछ ।

Section	A-50									B-50					
Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Short Questions	1	1	1		1	1		1		1	1	1	1	1	1
Long Questions	1				1					1	1				

२. कम्प्युटर सीप परीक्षण (Computer Skill Test)

विषय: कम्प्युटर सीप परीक्षण (Computer Skill Test)

विषय	पूर्णाङ्क	विषयवस्तु शीर्षक	अङ्क	समय
कम्प्युटर सीप परीक्षण (Computer Skill Test)	१०	Nepali Typing	२ अङ्क	५ मिनेट
		English Typing	२ अङ्क	५ मिनेट
		Ms word	२ अङ्क	१० मिनेट
		Electronic Spreadsheet	२ अङ्क	
		Presentation System	१ अङ्क	
		Windows basic, Email and Internet	१ अङ्क	
जम्मा			१० अङ्क	२० मिनेट

Contents

- Ms word (0.5×2=1 Marks and 1×1=1 Mark)
 - Creating, saving and opening documents
 - Typing in Nepali and English
 - Text formatting (Font, Size, Color, Underline, Italic, Bold, etc.) and paragraph formatting (alignment, indentation, spacing)
 - Inserting Header, Footer, Page Number, Table, Pictures, Shapes, Hyperlink, Bookmark, Text Box and Symbol
 - Page Formatting
 - Security Techniques of Document
 - Mail merge
- Electronic Spreadsheet (0.5×2=1 Marks and 1×1=1 Mark)
 - Organization of Electronic Spreadsheet applications (Cells, Rows, Columns, Worksheet, Workbook and Workspace)
 - Creating, Opening and Saving Work Book
 - Editing, Copying, Moving, Deleting Cell Contents
 - Formatting Cells (Font, Border, Pattern, Alignment, Number, Protection, Margins and text wrap)
 - Formatting Rows, Column and Sheets
 - Using Formula with Relative and Absolute Cell Reference
 - Using Basic Functions (SUM, MAX, MIN, AVERAGE)
- Presentation System (0.5×2=1 Marks)
 - Introduction to presentation application
 - Creating, Opening & Saving Slides
 - Formatting Slides, Slide design, Inserting header & footer
 - Slide Show, hyper link
 - Animation
 - Inserting Built-in picture, Picture, Table, Chart, Graphs, and Organization Chart etc.
- Windows basic, Email and Internet (0.5×2=1 Marks)
 - Introduction to Graphical User Interface
 - Starting and shutting down Windows
 - Basic Windows elements: Desktop, Taskbar, My Computer, Recycle Bin etc.
 - Concept of file, folder, menu, toolbar
 - Searching files and folders
 - Internet browsing & searching content in the web
 - Creating Email ID, Using email and mail client tools

अंग्रेजी र नेपाली Typing Skill Test को लागि निर्देशन

१. नेपाली typing skill test को लागि १५० शब्दको एउटा text दिइनेछ र देहाय अनुसार अङ्क प्रदान गरिनेछ।

शुद्ध शब्द प्रतिमिनेट (Correct words/minute)	पाउने अङ्क
४ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	० अङ्क
४ वा सो भन्दा बढी र ७ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.२५ अङ्क
७ वा सो भन्दा बढी र १० भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.५० अङ्क
१० वा सो भन्दा बढी र १३ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.७५ अङ्क
१३ वा सो भन्दा बढी र १६ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.०० अङ्क
१६ वा सो भन्दा बढी र १९ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.२५ अङ्क
१९ वा सो भन्दा बढी र २२ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.५० अङ्क
२२ वा सो भन्दा बढी र २५ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.७५ अङ्क
२५ वा सो भन्दा बढी शुद्ध शब्द प्रतिमिनेट वापत	२.०० अङ्क

२. English typing skill test को लागि २०० शब्दको एउटा text दिइनेछ र देहाय अनुसार अङ्क प्रदान गरिनेछ।

शुद्ध शब्द प्रतिमिनेट (Correct words/minute)	पाउने अङ्क
४ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	० अङ्क
४ वा सो भन्दा बढी र ८ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.२५ अङ्क
८ वा सो भन्दा बढी र १२ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.५० अङ्क
१२ वा सो भन्दा बढी र १६ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	०.७५ अङ्क
१६ वा सो भन्दा बढी र २० भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.०० अङ्क
२० वा सो भन्दा बढी र २४ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.२५ अङ्क
२४ वा सो भन्दा बढी र २८ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.५० अङ्क
२८ वा सो भन्दा बढी र ३२ भन्दा कम शुद्ध शब्द प्रतिमिनेट वापत	१.७५ अङ्क
३२ वा सो भन्दा बढी शुद्ध शब्द प्रतिमिनेट वापत	२.०० अङ्क

३. नेपालीमा दिइएको text लाई अनिवार्य रूपमा युनिकोड (रोमानाइज्ड वा ट्रेडिसनल) मा टाइप गर्नुपर्नेछ।
४. अंग्रेजी र नेपाली typing मा दिइएको text लाई आधारमानी टाइप गरेको text सँग भिडार्ई परीक्षण गरिनेछ। दिइएको अंग्रेजी वा नेपाली text मा उल्लेखित स्थान बमोजिम परीक्षार्थीहरूले आफ्नो text मा punctuation टाइप नगरेको पाइएमा त्यसको शब्दमा गणना गरिनेछैन। तत्पश्चात, निम्न formula प्रयोग गरी शुद्ध शब्द प्रतिमिनेट (correct words/minute) निकालिनेछ।

Formula: शुद्ध शब्द प्रतिमिनेट (Correct words/minute) = $\frac{(\text{Total words typed} - \text{Wrong words})}{5}$