

प्रदेश लोक सेवा आयोग, कर्णाली प्रदेश
प्रदेश निजामती सेवा र स्थानीय सेवाको कृषि सेवा, लाईभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृतस्तर सातौं
तह, पशु विकास अधिकृत पदको खुला, अन्तर तह र आन्तरिक अन्तर सेवा प्रतियोगितात्मक लिखित परीक्षाको
पाठ्यक्रम र परीक्षा योजना

पाठ्यक्रमको रूपरेखा: संयुक्त र एकीकृत परीक्षा प्रणाली (Integrated and Unified Examination System) को
आधारमा निम्नानुसारको विभाजन गरिएको छ।

परीक्षाको चरण	परीक्षाको किसिम	पूर्णाङ्क
प्रथम	लिखित परीक्षा	२००
अन्तिम	सामुहिक परीक्षण र अन्तर्वार्ता	४०

१. प्रथम चरण: लिखित परीक्षा (Written Exam)

पत्र	विषय	खण्ड	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्नसंख्या Xअङ्क	समय
प्रथम	General Subject	Part I: General Knowledge and General Ability Test	१००	४०	वस्तुगत (Objective): बहुवैकल्पिक प्रश्न (Multiple Choice Questions)	५०X१=५०	१ घण्टा ३०मिनेट
		Part II: General Technical Subject				५०X१=५०	
द्वितीय	Technical Subject		१००	४०	विषयगत (Subjective): छोटो उत्तर लामो उत्तर	८X५=४० ६X१०=६०	३ घण्टा

२. अन्तिम चरण: सामुहिक परीक्षण र अन्तर्वार्ता (Group Test & Interview)

विषय	पूर्णाङ्क	परीक्षा प्रणाली	समय
सामुहिक परीक्षण (Group Test)	१०	समुहमा व्यक्तिगत प्रस्तुती (Individual Presentation in Group)	३० मिनेट
व्यक्तिगत अन्तर्वार्ता (Individual Interview)	३०	मौखिक (Oral)	

द्रष्टव्य:

- यस पाठ्यक्रम योजनालाई प्रथम चरण र अन्तिम चरणमा विभाजन गरिएको छ।
- खुला र समावेशी समूहको एउटै प्रश्नपत्रबाट परीक्षा सञ्चालन हुनेछ।
- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुन सक्नेछ।

४. 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।
५. बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा क्याल्कुलेटर प्रयोग गर्न पाइने छैन।
६. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जुनसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ।
७. परीक्षा हलमा मोबाइल फोन, स्मार्ट वाच, हेड फोन वा यस्तै प्रकारका विद्युतीय उपकरण, पुस्तक, नोटबुक, झोला लगायतका वस्तुहरू लैजान पाइने छैन।
८. परीक्षामा सोधिने प्रश्नसंख्या, अङ्क र अङ्कभार यथासम्भव सम्बन्धित पत्र/विषयमा दिईए अनुसार हुनेछ।
९. विषयगत प्रश्न हुने पत्र/विषयका प्रत्येक भाग/खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन्। परीक्षार्थीले प्रत्येक भाग/खण्डका प्रश्नहरूको उत्तर सोही भाग/खण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ।
१०. यस पाठ्यक्रम अनुसारका पत्र/विषयका विषयवस्तुमा जुनसुकै कुरा लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगावै संशोधन भई कायम रहेका विषयवस्तुलाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ।
११. प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र अन्तिम चरणको परीक्षामा सम्मिलित गराइनेछ।
१२. लिखित परीक्षा र अन्तिम चरणको सामूहिक परीक्षण र अन्तर्वार्ताको कुल प्राप्ताङ्कको आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ।
१३. पाठ्यक्रम अध्यावधिक भई लागू हुने मिति: २०८१।०८।१४

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सातौं तह, पशु विकास अधिकृत पदको खुला, अन्तर तह र आन्तरिक अन्तर सेवा प्रतियोगितात्मक लिखित
परीक्षाको पाठ्यक्रम

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 with special focus on Karnali Province
 - 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 Karnali Province and 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 FAO, WOA & WTO
 - 1.8 The Constitution of Nepal
 - 1.9 Governance system and Government (Federal, Provincial and Local)
 - 1.10 Provisions of civil service act [(Karnali Province Civil Service Act, 2080 and Regulations, 2080], {Local Services (Formulation and Operation) Act, 2081} and regulation relating to 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, staffing, 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
 - 1.17 Public service delivery system and its barriers in Nepal
2. General Ability Test (25 ×1 Mark = 25 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 (9×1 Mark = 9 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 (II):

General Technical Subject (50 Marks)

1. Introduction, Livestock Development Related Plans, Policies, Acts and Regulatory Functions (5 Marks)
 - 1.1. History, current status and prospectus of livestock services in Karnali Province and Nepal
 - 1.2. Current status of livestock production and production systems of livestock and poultry in Karnali Province and Nepal
 - 1.3. Indigenous and exotic breeds of livestock and poultry and their population in Karnali Province and Nepal
 - 1.4. Provisions made by ADS, Dairy Development Plan for Livestock sector development in Nepal
 - 1.5. Important livestock policies (Range Land Policy, 2068, Poultry Policy, 2068, National Dairy Development Policy, 2078 and National Animal Breeding Policy, 2078) and their importance in Nepal.
 - 1.6. Animal Health and Livestock Service Act, 2055 and Regulation, 2056
 - 1.7. Slaughter house and Meat Inspection Act, 2055 and Regulation, 2057
 - 1.8. Feed Act, 2033 and Regulation, 2041
 - 1.9. National Park and Wildlife Conservation Act, 2029
2. Animal Nutrition (8 Marks)
 - 2.1. Functions of water, proteins, fats, carbohydrates, minerals and vitamins in animal body and their requirements for different species of livestock and poultry- their sources and deficiency syndromes
 - 2.2. Intake, digestion, utilization and metabolism of various nutrients by ruminants and non-ruminants
 - 2.3. Factors affecting nutritive value of feed stuffs
 - 2.4. Feed additives—antioxidants, antibiotics, pre-biotics, pro-biotics, antifungal, coccidiostat, growth promoters and their uses in animal feed
 - 2.5. Utilization of crop and industrial by-products in poultry and livestock
 - 2.6. Feeds and feeding standards for each livestock and poultry species at different stages
 - 2.7. Blood Urea Nitrogen: Introduction, Its type and usage in livestock feed.
 - 2.8. Urea treated rice straw and Urea Molasses Mineral Block (UMMB)
3. Pasture And Fodder (10 Marks)
 - 3.1. Classification of different types of pasture and fodder species
 - 3.2. Agronomical management of important tropical, sub-tropical and temperate species of grasses and legumes such as stylo, berseem, oat, rye grass, soybean, sorghum, Para grass, broom grass, Centro, vetch, Napier, desmodium, clover, teosente, molasses, cowpea, velvet bean, kudzu, Guatemala etc.
 - 3.3. Nursery management of fodder tree species
 - 3.4. Agronomical management of fodder trees such as Badahar, Epil epil, Kutmiro, Tanki, Kimbu Leucaena, Khannyo, Kabro, Pakhuri, Dabdabe, Bakaino etc.
 - 3.5. Different methods of forage conservation-hay, silage and their nutritive values
 - 3.6. Agro-forestry/Silvi-pasture in community and leasehold forestry, fruit orchard
 - 3.7. Principles and practices of forage seed production

3.8. Seed (foundation and certified) production of different pasture and fodder species including fodder trees in different eco-zones of Nepal

3.9. Quality management of seeds and methods of their estimation

4. Animal Breeding And Reproduction (10 Marks)

4.1. Segregation and recombination of genes

4.2. Expression of genes—additive and non-additive gene action, causes of variation in gene expression

4.3. Heritability and repeatability estimates

4.4. Breeding values, measure of genetic and phenotypic relationships

4.5. Principles of selection: Selection differential, selection response, selection intensity, generation interval, phenotypic, genetic and environmental correlation and genetic progress

4.6. Indigenous and exotic breeds of livestock and poultry found in Nepal and their characteristics

4.7. Types of breeding: inbreeding, close breeding, line breeding, out-crossing, out-breeding, crossbreeding and upgrading

4.8. Anatomy of male and female reproductive organs of different species of livestock and poultry

4.9. Hormones of reproduction and their functions – estrous cycle, ovulation, fertilization, gestation and parturition; induction and synchronization of ovulation

4.10. Reproductive disorders and their corrective measures

5. Livestock And Poultry Management (12 Marks)

5.1. Husbandry

5.1.1. Types of housing and space requirement of different livestock and poultry

5.1.2. Different types of record maintenance of farm animals and poultry

5.1.3. Management of different stages of animal (young, pregnant, lactating, dry etc)

5.1.4. Management of livestock and poultry breeding stocks

5.1.5. Hatchery management-factors influencing hatching efficiency

5.1.6. Management of chicks, growers and layers including broilers

5.1.7. Hygienic milk and meat production

5.1.8. Good animal husbandry practice

5.2. Animal Health

5.2.1. Sanitation and prophylactic measures

5.2.2. External and internal parasites-their prevention and control measures

5.2.3. Symptoms, prevention and control measures of common livestock and poultry diseases- FMD, Lumpy Skin Disease, PPR, HS, BQ, Calf scour, Mastitis, Tetanus, Enterotoxaemia, Anthrax, Calf Pneumonia, Bloat, CBPP, CCPP, Foot rot, Classical Swine fever, African Swine fever, Blue Tongue, Avian Influenza, Ranikhet, Gumboro, Marek's, Fowl Typhoid, Fowl Cholera, Fowl Pox, Colibacillosis, CRD, Aspergillosis, Mycotoxicosis etc.

5.2.4. Zoonotic diseases and their importance to public health in Nepal.

6. Dairy

(5 Marks)

- 6.1. Milk secretion and let down phenomenon
- 6.2. Composition of milk of different livestock species
- 6.3. Factors affecting the composition of milk and milk quality
- 6.4. Nutritive value of milk with respect to different milk constituents
- 6.5. Physical and chemical properties of milk
- 6.6. Pasteurization, and homogenization milk
- 6.7. Legal standard of different dairy product in Nepal
- 6.8. Different milk products: Yoghurt, Ghee, Paneer, Butter, Ice-cream, Khuwa, Cheese, Chhurpi and Chhenna etc

--The End--

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अधिकृतस्तर सातौं तह, पशु विकास अधिकृत पदको खुला, अन्तर तह र आन्तरिक अन्तर सेवा
प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

द्वितीयपत्र (Paper II): Technical Subject

Section A– 20 Marks

1. Introduction, Livestock Development Related Plans, Policies, Acts and Regulatory Functions
 - 1.1. Animal Health and Livestock Service Act, 2055 and Regulation, 2056
 - 1.2. Slaughter house and Meat Inspection Act, 2055 and Regulation, 2057
 - 1.3. Feed Act, 2033 and Regulation, 2041
 - 1.4. Environment Protection Act, 2076 and Regulations, 2077
 - 1.5. Role of public and private sectors in the promotion of livestock services in Nepal
 - 1.6. Recent livestock development related policies and plans of Government of Nepal and Karnali Province
 - 1.7. Provisions made by ADS, Dairy Development Plan for Livestock sector development
 - 1.8. Provisions related to Livestock Insurance and Agricultural loan
 - 1.9. Outline of the World Trade Organization (WTO), Sanitary and Phytosanitary (SPS) measures, Technical Barrier to Trade (TBT), Trade related aspects of Intellectual Property Rights (IPRs) agreement
 - 1.10. Introduction to WOA, its objectives, function, structure, Standard setting procedures and different standards as set in Terrestrial Animal health code, Aquatic animal health code
 - 1.11. Role of FAO in livestock production and health
 - 1.12. Concept of animal welfare and its implication in Nepal.
 - 1.13. Range Land Policy 2068, Poultry Policy 2068, National Dairy Development Policy 2078 and National Animal Breeding Policy, 2078
2. Livestock Marketing
 - 2.1. Concept of marketing, relationship between livestock production and marketing
 - 2.2. Types of markets for livestock and livestock products in Nepal.
 - 2.3. Factors affecting the livestock markets
 - 2.4. Livestock market promotion and sustainable management
 - 2.5. Economics of poultry (layers and broilers) farming
 - 2.6. Economics of livestock (cattle, buffalo, goat, sheep, pig, and rabbit) farming

Section B– 30 Marks

3. Animal Nutrition
 - 3.1. Conventional and non-conventional feeds
 - 3.2. Nutritional contents of different species of pasture, fodder, fodder trees including indigenous species, agricultural and industrial by-products
 - 3.3. Anti-nutritional factors in feeds and fodders
 - 3.4. Different methods of nutritional analysis of livestock feeds and fodder

- 3.5. Computation and evaluation of ration for different livestock and poultry species
- 3.6. Utilization of wastes in animal feeding
- 3.7. Feeds and feeding standards for different livestock and poultry species at different stages
- 3.8. Introduction of Blood Urea Nitrogen, its types and usage in livestock feed.
- 3.9. Urea and ammonia treatment in rice straw and use of Urea Molasses Mineral Block (UMMB) and their efficiency in ruminant feeding
- 3.10. Animal feed and nutrients balance sheet in Nepal.
4. Posture and Fodder Management
 - 4.1. Soil organic matter and organic manure in relation to pasture and fodder species
 - 4.2. Agronomical management of tropical, sub-tropical and temperate species of grasses and legumes such as stylo, lucern, berseem, oat, rye grass, soybean, sorghum, para grass, broom grass, centro, napier, desmodium, vetch, clover, teosente, molasses, cowpea, valvet bean and kudzu etc.
 - 4.3. Agronomical management of fodder trees such as Badahar, Kutmiro, Tanki, Epil epil, Khanayo Kimbu, Kabro, Pakhuri, Dabdabe, Bakaino etc.
 - 4.4. Pasture and range land management practices in different eco-zones of Nepal.
 - 4.5. Different methods of forage conservation- hay, silage and their nutritive values in livestock feeding.
 - 4.6. Utilization of crop residues–improvement of nutritive values
 - 4.7. Agro-forestry/Silvi-pasture in community, leasehold forestry and fruit orchard
 - 4.8. Principles and practices of forage seed production
 - 4.9. Seed (foundation and certified) production of different pasture and fodder species including fodder trees in different eco-zones
 - 4.10. Quality of seeds, purity, viability, germination and management including their methods of estimation

Section C–30 Marks

5. Animal Breeding and Reproduction
 - 5.1. Concept of genetic resistance to diseases and parasites
 - 5.2. Indigenous and exotic breeds of livestock and poultry and their characteristics
 - 5.3. Methods of selection-independent culling, tandem, and selection index
 - 5.4. Hormones of reproduction and their functions – estrous cycle, ovulation, fertilization, gestation and parturition
 - 5.5. Reproductive disorders and their corrective measures
 - 5.6. Collection, processing, evaluation and storage of warm and frozen semen
 - 5.7. Artificial insemination technique, heat synchronization and pregnancy diagnosis
 - 5.8. Concept of embryo-transfer technology and its use in livestock development in Nepal.
 - 5.9. Formulation of breeding plan for livestock and poultry species
 - 5.10. Concept of Pedigree Performance Recording System (PPRS) and its practices in Nepal.
6. Dairy
 - 6.1. Pasteurization and homogenization of milk
 - 6.2. Standardization of milk, cream and other milk products

- 6.3. Methods of preparation, types, nutritive value of yoghurt, butter, ghee, cheese, paneer, khuwa, ice -cream, chhurpi and chhenna
- 6.4. Prevention and control of milk borne diseases
- 6.5. Packaging and storing of milk and milk products
- 6.6. Development and project planning of mini dairy plant in rural and peri-urban areas.
- 6.7. Schedule for maintenance of mini dairy plants
- 6.8. Concept of hygienic milk production and its implication in Nepal.

Section D–20 Marks

7. Animal Husbandry

- 7.1. Functions and tools of farm management
- 7.2. Management of different stages of animal (young, pregnant, lactating, dry etc)
- 7.3. Management of chicks, growers, layers and poultry breeding stocks
- 7.4. Proper handling and utilization of livestock and poultry farm wastes
- 7.5. Hatchery management
- 7.6. Slaughterhouse management
- 7.7. Principle of hygienic meat production.

8. Animal Health

- 8.1. Sanitation and bio-security measures
- 8.2. External and internal parasites- their prevention and control measures
- 8.3. Symptoms, prevention and control measures of common livestock and poultry diseases- FMD, Lumpy Skin Disease, PPR, HS, BQ, Calf scour, Mastitis, Tetanus, Enterotoxaemia, Anthrax, Calf Pneumonia, Bloat, CBPP, CCPP, Foot rot, Classical Swine fever, African Swine fever, Blue Tongue, Avian Influenza, Ranikhet, Gumboro, Marek's, Fowl Typhoid, Fowl Cholera, Fowl Pox, Colibacillosis, CRD, Aspergillosis, Mycotoxicosis etc.
- 8.4. Zoonotic diseases and their importance to public health in Nepal.

द्वितीयपत्रको प्रश्न तालिका

खण्ड	A-20		B-30		C-30		D-20	
एकाई	1	2	3	4	5	6	7	8
छोटो प्रश्नसंख्या	1	1	1	1	1	1	1	1
लामो प्रश्नसंख्या	1		1	1	1	1	1	

सामूहिक परीक्षण

सामूहिक परीक्षण व्यक्तित्व परीक्षणको एक अंश हो। प्रदेश निजामती सेवा र स्थानीय सेवाको क्षेत्र विस्तार तथा कार्य पद्धति परिवर्तन समेत भैरहेको सन्दर्भमा कर्णाली प्रदेश सरकारको नीति, योजना, कार्यक्रम लगायत शासन व्यवस्था सम्बन्धी समसामयिक विषय माथि विचारविमर्श, छलफल गरी तिनको अझै बढी प्रभावकारी तथा कार्यान्वयनयोग्य समाधान पहिल्याउने सम्बन्धमा उम्मेदवारहरुको क्षमता पहिचान गर्नु यस परीक्षणको मूल मर्म हो। यसको लागि छलफल, विचारविमर्श गरी परिस्थिति बुझ्न – सक्ने, निर्णय दिने, जनतालाई क्रियाशील बनाउने, चित्त बुझाउने, निर्धारित लक्ष्य अनुसार काम गर्ने/गराउने, जस्ता कामका लागि लेखन क्षमताका साथसाथै समस्यालाई यथार्थपरक ढंगले पहिचान गर्नसक्ने, वाकपटुता, शिष्टता, तर्कशक्तिको पनि आवश्यकता पर्दछ।

त्यसैले यस परीक्षणमा उम्मेदवारहरुको बौद्धिक क्षमता, संचार सीप, समूह गतिशीलता, व्यवहार, व्यक्तित्व, मनोवृत्ति, क्रियाशीलता, निर्णयशक्ति, समस्या समाधान क्षमता, नेतृत्व क्षमता, समय व्यवस्थापन तथा व्यक्तित्वमा भएका अन्य गुणहरुको आंकलन अर्थात परीक्षण र मूल्याङ्कन गर्नको लागि उम्मेदवारहरुलाई कुनै समसामयिक विषय/सवाल/समस्यामा सामूहिक छलफल गरी समस्या समाधान केन्द्रीत प्रभावकारी र कार्यान्वयन योग्य समाधान निकाल्न दिइन्छ।

यस प्रयोजनको लागि गरिने परीक्षण १० पूर्णाङ्क र ३० मिनेट अवधिको हुनेछ जुन नेताविहिन सामूहिक छलफलको रूपमा अवलम्बन गरिनेछ। दिइएको प्रश्न वा Topic का विषयमा पालैपालोसँग निर्दिष्ट समयभित्र समूहबीच छलफल गर्दै प्रत्येक उम्मेदवारले व्यक्तिगत प्रस्तुति गर्नुपर्नेछ। यस परीक्षणमा मूल्याङ्कनको लागि देहाय अनुसार कम्तीमा तीन जनाको समिति रहनेछ।

आयोगका अध्यक्ष वा अध्यक्षले तोकेको सदस्य	– अध्यक्ष
आयोगका सदस्य	– सदस्य
मनोविज्ञानवेत्ता	– सदस्य
दक्ष/विज्ञ (१ जना)	सदस्य

