

**प्रदेश लोक सेवा आयोग, मध्येश प्रदेश**  
**कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला**  
**तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**

यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

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

**परीक्षा योजना (Examination Scheme)**

प्रथम चरण : लिखित परीक्षा(Written Examination)

पूर्णाङ्कः:- २००

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

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

पूर्णाङ्कः:- ४०

पत्र/विषय	पूर्णाङ्क	उर्तीर्णाङ्क	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 ।
- प्रथमपत्र र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्कक कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस बापत अङ्कक दिइने छैन र अङ्कक कट्टा पनि गरिने छैन ।
- बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।
- विषयगत प्रश्नहरूको 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 टिप्पणीहरू (Short notes) सोधन सकिने छ ।
- द्वितीय पत्रमा (विषयगत प्रश्न हुनेका हकमा) प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परिक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्ड को उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै 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 ।
- प्रथमचरणको परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीयचरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रम लागू मिति: २०८१/०८/२६ गते देखि ।

प्रदेश लोक सेवा आयोग, मधेश प्रदेश  
कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला  
तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

**प्रथम पत्र (Paper I): General Subject**

**Part (1): General Awareness & General Ability Test (50 Marks)**

**1. General Awareness and Contemporary Issues**

**(25x1 Mark = 25 Marks)**

- 1.1 Physical, socio-cultural and economic geography and demography of Nepal, focusing on Madhesh Pradesh
- 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 Provincial ( Madhesh Province), national and international importance

**2. General Reasoning Test**

**(25 x1 Mark =2Marks)**

**2.1 Logical Reasoning (9x1 Mark = 9 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 (8x1 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 (8x1 Mark = 8 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

**प्रदेश लोक सेवा आयोग, मधेश प्रदेश**  
**कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला**  
**तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**  
**Part(2):- General Technical Subject (50 Marks)**

<b>1. LIVESTOCK DEVELOPMENT related plans, policies and acts</b>	<b>6%</b>
1.1 Livestock sector in Agricultural Perspective Plan (APP), Agriculture Development Strategy (ADS) and current five year plan	
1.2 Animal health and livestock services Act and Regulation	
1.3 Animal slaughterhouse and Meat Inspection Act and Regulation	
1.4 Livestock development approaches	
1.5 Livestock statistics of Madhesh Province and Nepal	
<b>2. ANIMAL NUTRITION</b>	<b>14%</b>
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, probiotics, antifungal, coccidiostat and growth promoters	
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	
<b>3. PASTURE AND FODDER</b>	<b>26%</b>
3.1 Morphology of pasture and fodder crops	
3.2 Classification of different types of pasture and fodder species	
3.3 Agronomical management of tropical, sub-tropical and temperate species of grasses and legumes such as stylo, berseem, oat, rye grass, soybean, sorghum, Para grass, broom grass, Centro, Napier, desmodium, vetch, clover, teosente, molasses, cowpea, velvet bean and kudzu etc.	
3.4 Nursery management of fodder tree species	
3.5 Agronomical management of fodder trees such as Badahar, Kutmiro, Tanki, Leucaena, Khannyo, Kimbu, Kabro, Pakhuri, Dabdabe, Bakaino etc.	
3.6 Different methods of forage conservation- hay, silage and their nutritive values	
3.7 Agro-forestry / Silvi-pasture in community and leasehold forestry, fruit orchard	
3.8 Principles and practices of forage seed production	
3.9 Seed (foundation and certified) production of different pasture and fodderspecies including fodder trees in different eco-zones	
3.10 Quality management of seed and methods of estimation	
<b>4. ANIMAL BREEDING AND REPRODUCTION</b>	<b>20%</b>
4.1 The cell and cell division	
4.2 Segregation and recombination of genes	
4.3 Expression of genes – additive and non-additive gene action, causes of variation in gene expression	
4.4 Heritability and repeatability estimates	
4.5 Breeding values, measure of genetic and phenotypic relationships	

**प्रदेश लोक सेवा आयोग, मध्येश प्रदेश**  
**कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला**  
**तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**

- 4.6 Principles of selection: Selection differential, selection response, selection intensity, generation interval, phenotypic, genetic and environmental correlation and genetic progress
- 4.7 Indigenous and exotic breeds of livestock and poultry and their characteristics
- 4.8 Types of breeding: inbreeding, line breeding, outcrossing, outbreeding crossbreeding
- 4.9 Anatomy of male and female reproductive organs of different species of livestock and poultry
- 4.10 Hormones of reproduction and their functions – estrous cycle, ovulation, fertilization, gestation and parturition; induction and synchronization of ovulation
- 4.11 Reproductive disorders and their corrective measures

**5. LIVESTOCK AND POULTRY MANAGEMENT****24%****5.1 Husbandry**

- 5.1.1 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 results
- 5.1.6 Management of chicks, growers and layers including broilers
- 5.1.7 Hygienic milk production

**5.2 Animal Health**

- 5.2.1 Sanitation and prophylactic measures
- 5.2.2 External and internal parasites - their control measures
- 5.2.3 Symptoms, prevention and control measures of common livestock and poultry diseases - scour, mastitis, H.S., FMD, Calf pneumonia, bloat PPR, black quarter, enterotoxaemia, foot rot, pox, swine fever, Ranikhet, Gumboro, Marecks, CRD, etc.
- 5.2.4 Zoonotic diseases and their importance to public health

**6. DAIRY****10%**

- 6.1 Milk secretion phenomenon
- 6.2 Composition of milk of different livestock species
- 6.3 Factor 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 Collection, storage and transportation of milk and milk products
- 6.7 Pasteurization and homogenization of milk
- 6.8 Legal standard of different dairy product in Nepal

**प्रदेश लोक सेवा आयोग, मध्येश प्रदेश**  
**कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला**  
**तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**

**द्वितीय पत्र : Technical Subject**

**Section A– 20 Marks**

**1. ANIMAL NUTRITION** **20%**

- 1.1 Conventional and non-conventional feeds
- 1.2 Nutritional contents of different species of pasture, fodder, fodder trees including indigenous species, agricultural and industrial by-products
- 1.3 Anti-nutritional factors in feeds and fodders
- 1.4 Different methods of nutritional analysis of livestock feeds and fodder
- 1.5 Computation and evaluation of ration for different livestock and poultry species
- 1.6 Utilization of wastes in animal feeding

**Section B– 20 Marks**

**2. PASTURE AND FODDER** **20%**

- 2.1 Soil fertility evaluation- soil testing, plant analysis, deficiency symptoms and biological test in relation to pasture and fodder species
- 2.2 Soil organic matter and organic manure in relation to pasture and fodder species
- 2.3 Agronomical management of tropical, sub-tropical and temperate species of grasses and legumes such as stylo, lucern, berseem, oat, rye grass, soybeansorghum, paragrass, broomgrass, centro, napier, desmodium, vetch, clover, teosente, molasses, cowpea, velvet bean and kudzu etc.
- 2.4 Agronomical management of fodder trees such as Badahar, Kutmiro, Tanki, Epil epil, Khannyo, Kimbu, Kabro, Pakhuri, Dabdabe, Bakaino etc.
- 2.5 Pasture and rangeland management practices in different eco-zones
- 2.6 Different methods of forage conservation- hay, haylage, silage and their nutritive values
- 2.7 Utilization of crop residues – improvement of nutritive values
- 2.8 Agro-forestry / Silvi-pasture in community and leasehold forestry, fruit orchard
- 2.9 Principles and practices of forage seed production
- 2.10 Seed (foundation and certified) production of different pasture and fodder species including fodder trees in different eco-zones
- 2.11 Quality management of seed and methods of estimation

**Section C– 30 Marks**

**3. ANIMAL BREEDING AND REPRODUCTION** **20%**

- 3.1 Concept of genetic resistance to diseases and parasites
- 3.2 Indigenous and exotic breeds of livestock and poultry and their characteristics
- 3.3 Methods of selection- independent culling, tandem, and selection index
- 3.4 Hormones of reproduction and their functions – estrous cycle, ovulation, fertilization, gestation and parturition; induction of heat and synchronization of ovulation
- 3.5 Reproductive disorders and their corrective measures
- 3.6 Collection, processing, evaluation and storage of warm and frozen semen
- 3.7 Sexed semen significance and usage

**प्रदेश लोक सेवा आयोग, मधेश प्रदेश**  
**कृषि सेवा, लाइभस्टक, पोल्ट्री एण्ड डेरी डेभलपमेन्ट समूह, अधिकृत साताँ तहको खुला**  
**तथा अन्तर सेवा प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**

- 3.8 Artificial insemination technique and pregnancy diagnosis
- 3.9 Embryo-transfer technology in livestock development
- 3.10 present status, problem and strategies for improvement of livestock breeding system in provincial and national level
- 3.11 Formulation of breeding plan for livestock and poultry species
- 3.12 Conservation and utilization of animal genetic resources

**4. DAIRY** **10%**

- 4.1 Pasteurization and homogenization of milk
- 4.2 Standardization of milk, crea m and other milk products
- 4.3 Methods of preparation, types, nutritive value of yoghurt, butter, ghee, cheese,paneer,khuwa, ice cream and chhurpi
- 4.4 Milk borne diseases in brief
- 4.5 Packaging and storing of milk and milk products
- 4.6 Development and project planning of mini dairy plant
- 4.7 Costing of different dairy products
- 4.8 Schedule for maintenance of mini dairy plants
- 4.9 Good hygienic practices in dairy

**Section D– 30 Marks**

**5. LIVESTOCK AND POULTRY MANAGEMENT** **30%**

**5.1 Husbandry**

- 5.1.1 Functions and tools of farm management
- 5.1.2 Management of different stages of animal (young, pregnant, lactating, dry etc)
- 5.1.3 Management of livestock and poultry breeding stocks
- 5.1.4 Handling and utilization of livestock and poultry farm wastes
- 5.1.5 Hatchery management- factors influencing hatching results
- 5.1.6 Management of chicks, growers and layers including broilers
- 5.1.7 Hygienic milk production
- 5.1.8 Good husbandry practices
- 5.1.9 Climate SMART Livestock Management Practices

**5.2 Animal Health**

- 5.2.1 Sanitation and prophylactic measures focusing on vaccination
- 5.2.2 External and internal parasites - their control measures
- 5.2.3 Symptoms, prevention and control measures of common livestock and poultry diseases - scour, mastitis, H.S., FMD, Calf pneumonia, bloat, PPR, black quarter, enterotoximia, foot rot, pox, swine fever, Ranikhet,Gamboro, Marex, CRD,lumpy skin disease,Bird flu
- 5.2.4 Metabolic disease
- 5.2.5 Zoonotic diseases and their importance to public health
- 5.2.6 Concept and strategies of one health

### 5.3 Livestock Marketing

- 5.3.1 Relationship between livestock production and marketing
- 5.3.2 Types of markets for livestock and livestock products
- 5.3.3 Factors affecting the livestock markets
- 5.3.4 Livestock market promotion and sustainable management
- 5.3.5 Economics of poultry (layers and broilers) farming
- 5.3.6 Economics of livestock (cattle, buffalo, goat, sheep, pig, and rabbit) farming
- 5.3.7 Livestock value chain

प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र

लिइने सामूहिक परीक्षण (group test ) को लागि

### सामूहिक छलफल (Group Discussion)

यस प्रयोजनको लागि गरिने परीक्षण १० पूर्णङ्क र ३० मिनेट अवधिको हुनेछ जुन नेताविहिन सामूहिक छलफल (leaderless Group Discussion ) को रूपमा अवलम्बन गरिने छ । दिइएको प्रश्न वा topic का विषयमा पालैपालोसँग निर्दिष्ट समयभित्र समूहवीच छलफल गर्दै प्रत्येक उम्मेदवारले व्यक्तिगत प्रस्तुती (Individual Presentation ) गर्नु पर्नेछ । यस परीक्षणमा मूल्यांकनको लागि देहाय अनुसारको ३ जनाको समिति रहनेछ ।

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

### सामूहिक छलफलमा दिइने नमुना प्रश्न वा Topic

उदाहरणको लागि – उर्जा संकट, गरीबी निवारण, स्वास्थ्य बीमा, खाद्य सुरक्षा, प्रतिभा पलायन जस्ता Topics मध्ये कुनै एक Topic मात्र दिइनेछ ।