

नेपाल सरकार
शिक्षक सेवा आयोग
माध्यमिक शिक्षकको अध्यापन अनुमति पत्रको लिखित परीक्षा पाठ्यक्रम, २०७५

(क) पहिलो पत्र : पशु विज्ञान (Animal Science)

- ६५ अङ्क

Introduction

This course consist of basic knowledge and skills related to animal sciences focusing on history, status, health, production system, product technology, information technology, farm economy , marketing and legal standard policy and plan of livestock and poultry development in Nepal.

Objectives

- Acquired basic knowledge and skills related to animal sciences
- Identify the different breed of livestock and poultry
- Describe the animal health, livestock development, animal welfare and veterinary service.

Part : I

Marks : 40

1. Introduction

- 1.1 History and current status of veterinary service in Nepal
- 1.2 Current status livestock and poultry production system in Nepal
- 1.3 Status of indigenouse and exotic breed of livestock and poultry in Nepal.
- 1.4 Role of public and private sector in the promotion of veterinary service in Nepal
- 1.5 Recent policy and plan related to livestock development in Nepal.
- 1.6 International standard, quality and regulation for veterinary service, animal welfare and livestock production.

2. Animal Health

- 2.1 Concept of health and disease
- 2.2 Microbiology and parasitology
- 2.3 Pharmacology
- 2.4 Systemic diseases of livestock
- 2.5 Pathology
- 2.6 Hematology
- 2.7 First aid on surgical and gynecological cases
- 2.8 Diseases caused by helminthes and protozoa
- 2.9 Diseases caused by external parasites
- 2.10 Bacterial diseases of livestock
- 2.11 Viral diseases of livestock
- 2.12 Bacterial diseases of poultry
- 2.13 Viral diseases of poultry
- 2.14 Fungal diseases of livestock and poultry
- 2.15 Metabolic diseases and Deficiency diseases
- 2.16 Public health and epidemiology

3. Livestock production and management (cattle/buffalo, sheep/ goat, pig, poultry and fish)

- 3.1 Housing and sanitation of livestock
- 3.2 Introduction to artificial insemination
- 3.3 Nutrient requirement for different group of animal
- 3.4 care and management of newborn, young, adult, pregnant animal.
- 3.5 common diseases of livestock and poultry and their prevention.

- 3.6 Different Management practice of livestock(ear notching ,tagging, debeaking, restraining, hoof trimming,)
- 3.7 Anatomy and physiology of ruminant and non-ruminant
- 3.8 farming system of livestock
- 3.9 Breeding management of livestock and poultry
- 3.10 Record keeping of livestock and poultry
- 4. Livestock product technology (Dairy and meat)
 - 4.1 Dairy
 - 4.1.1 History and status of dairy in Nepal
 - 4.1.2 Properties of milk and its composition
 - 4.1.3 Milk synthesis mechanism
 - 4.1.4 Clean milk production
 - 4.1.5 Milk quality and its test
 - 4.1.6 Reception and pretreatment of milk
 - 4.1.7 Heat treatment of milk
 - 4.1.8 Method of preparation of dairy product
 - 4.1.9 Development and project planning of mini dairy animal
 - 4.1.10 Milk borne diseases in brief.
 - 4.1.11 Standardization of milk and milk product
 - 4.2 Meat
 - 4.2.1 History situation ,scope and problems of meat
 - 4.2.2 Careing of slaughtering animal and meat inspection
 - 4.2.3 stunning and method of slaughtering
 - 4.2.4 Composition and physical properties of meat
 - 4.2.5 Meat quality ,processing and microbiology of meat
 - 4.2.6 Abattoir and preparation of meat product.
- 5. Animal nutrition ,pasture and fodder production
 - 5.1 Animal feed classification, nutritional requirement, feeding system and feeding standard of farm animals and birds.
 - 5.2 Function of various nutrient and process of digestion in non ruminant and ruminant
 - 5.3 Feed formulation of livestock and poultry
 - 5.4 Fodder production and cultivation practices
 - 5.5 Conservation of forage and fodder
 - 5.6 Quality management of seed and method of estimation
 - 5.7 Economy of livestock feeding
- 6. Veterinary extension, farm management and application of Information technology in Livestock
 - 6.1 Extension, communication, transfer technology
 - 6.2 Social mobilization , group formation, leadership development, motivation and gender development
 - 6.3 Computer operating system, programming, software application, development and internet.
 - 6.4 Farm economy, planning and budgeting
 - 6.5 Farm record ,account and farm inventory
 - 6.6 Concept of cooperative, agriculture marketing, marketing channel of agriculture commodities.

Part : Two

Full Marks : 25

7. Curriculum Related Knowledge
 - 7.1. Space of animal science in secondary school curriculum.
 - 7.2. Breadth/Depth of the content
 - 7.3. Knowledge of competences and learning outcomes
 - 7.4. Resource materials of animal science in secondary level.
8. Classroom Teaching Skills
 - 8.1. Class room management skills
 - 8.2. Effective Presentation Skills/Exposition
 - 8.3. Problem Based Learning Strategies
 - 8.4. Small Group/Whole Class Discussion
 - 8.5. 'Observation' as an instructional strategy
9. Use of 'Projects' and 'Field Works' in Instruction
 - 1.1. Project Planning
 - 1.2. Implementing and Communicating
 - 1.3. Reporting/Presentation
 - 1.4. Exhibition
10. Assessment in teaching
 - 10.1. Knowledge of assessment plan and specification grid in school curriculum
 - 10.2. Developing test and appropriate tools for student assessment.
 - 10.3. Authentic assessment to measure performance.
 - 10.4. Use of rubrics
11. Use of ICT
 - 11.1. ICT as content enhancement (Use of various ICT tools to explore different topics of animal science and terminologies)
 - 11.2. ICT as delivery tool (Mobile, Multimedia software, online materials, games in classroom for specific contents)

प्रश्ननिर्माण योजना (Specification Grid)

प्रश्न एकाई	वस्तुगत (बहुवैकल्पिक) प्रश्न			विषयगत प्रश्न			जम्मा प्रश्न सङ्ख्या	पूर्णाङ्क
	प्रश्न संख्या	अङ्क भार	जम्मा	प्रश्न संख्या	अङ्क भार	जम्मा		
१	७	१	७	-	-	-	७	७
२	१०	१	१०	-	-	-	१०	१०
३	८	१	८	-	-	-	८	८
४	६	१	६	-	-	-	६	६
५	६	१	६	-	-	-	६	६
६	३	१	३	-	-	-	३	३
७	-	-	-	१	५	५	१	५
८	-	-	-	१	५	५	१	५
९	-	-	-	१	५	५	१	५
१०	-	-	-	१	५	५	१	५
११	-	-	-	१	५	५	१	५
जम्मा	४०	१	४०	५	५	२५	४५	६५

द्रष्टव्य :

१. प्रश्न पत्र तयार गर्दा संज्ञानात्मक तहका सबैजसो क्षेत्र समेटिने छन् ।
२. विषयगत प्रश्नहरूमा फर्त सिर्जनशीलता र शिक्षणसँग सम्बन्धित व्यावहारिक पक्षहरू मापन गर्ने उद्देश्य राखिने छन् ।
३. कण्ठस्थ गरी दिइएका जवाफभन्दा शिक्षण सिकाइसँग सम्बन्धित व्यावहारिक पक्षहरूको विश्लेषण/विवेचना तथा समस्याको समाधान गर्दै दिइएका मौलिक तथा सिर्जनात्मक उत्तरलाई प्रोत्साहित गरिने छन् ।
४. खण्ड (ख) अन्तर्गतका शिक्षणकलासँग सम्बन्धित प्रश्नहरू खण्ड (क) मा दिइएका विषयहरूको व्यावहारिक पक्षसँग जोडेर तयार गरिने छन् ।
५. लामो उत्तर आउने प्रश्नहरू शिक्षणमा सूचना प्रविधिको प्रयोगलाई समेत ध्यान दिइने छन् ।