



**पोखरा महानगरपालिका**  
**कृषि सेवा, खाद्य पोषण तथा गुण नियन्त्रण समुह खाद्य अनुसन्धान अधिकृत (Food Inspector) पद**  
**(अधिकृतस्तर/डेटा तह) को सूचीकृत भएका उमेदवारहरूको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम**

यस पाठ्यक्रम योजना लाई दुई चरणमा विभाजन गरिएको छ।

प्रथम चरण: लिखित परीक्षा

द्वितीय चरण: (क) सामूहिक परीक्षण

(ख) अन्तर्वार्ता

परीक्षा योजना:

प्रथम चरण: लिखित परीक्षा

पूर्णाङ्क: १००

पूर्णाङ्क: १०

पूर्णाङ्क: १५

पूर्णाङ्क: १००

विषय	खण्ड	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली		प्रश्न संख्या X अंक	समय
General and Technical Subject	Part I	५०	२०	वस्तुगत	बहुवैकल्पिक	२० प्रश्न X १ अंक	४५ मिनेट
	Part II					३० प्रश्न X १ अंक	
General and Technical Subject	Part I	५०	२०	विषयगत	छोटो उत्तर	२ प्रश्न X ५ अंक	१ घण्टा ३० मिनेट
	Part II					८ प्रश्न X ५ अंक	

**द्वितीय चरण: समूहिक परीक्षण र अन्तर्वार्ता**

पत्र/विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षण प्रणाली	समय
सामूहिक परीक्षण	१०		सामूहिक छलफल	३० मिनेट
अन्तर्वार्ता	१५		बोर्ड अन्तर्वार्ता	-

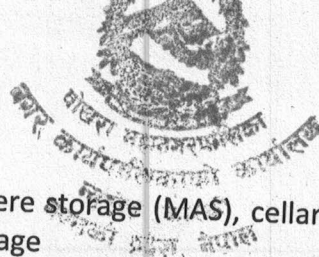
**Part I**

- नेपालको संविधान
- स्थानीय प्रशासन ऐन, २०२८
- स्थानीय सरकार सञ्चालन ऐन, २०७४
- चालु आवधिक योजना
- स्थानीय तहको योजना तर्जुमा प्रकृया
- सामान्य ज्ञान तथा समसामयिक विषय
- नेपाल सरकार, गण्डकी प्रदेश सरकार र पोखरा महानगरपालिकाबाट जारी भएका विषयसँग सम्बन्धित ऐन, नियम, निर्देशिका, कार्यविधि र मापदण्ड

**Paper - II**

**1. Post Harvest and Food Processing Technology**

- The broad-based approach to post-harvest and agro-industry development in Nepal.
- Development, growth, maturation, ripening of fruits and vegetables.
- Development of post-harvest technology for citrus, apple, mangoes, tomatoes, cabbages, cauliflowers etc. Controlled atmosphere storage

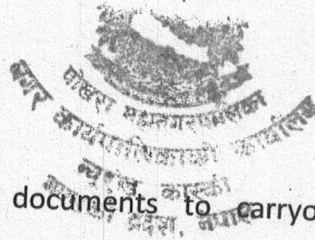


- (CAS), modified atmosphere storage (MAS), cellar storage, cold storage, zero energy chamber storage
- Post harvest handling of grains: Grading, storage and transportation of cereal grains
- Qualitative and quantitative assessment of post harvest losses and management system for loss reduction in rice, maize, wheat and other perishable food commodities such as fruits and vegetable.
- GoN's current policy and plan for increase in agriculture production and strategy for development of food and nutrition security
- General principles and methods of food preservation
- Indigenous food processing practices
- Processing and preservation of milk and milk products
- Processing and preservation of meat, fish and poultry
- Technology of cereal, legume and oil seeds.
- Confectionery technology
- Processing and preservation of tea, coffee, spice and condiments
- Processing and preservation of fruits and vegetable
- Uses of enzymes in food processing industries
- Use of various packaging materials in food processing
- Recent advancements in food processing technology

## **2. Human Nutrition**

- Food habits and food taboos
- Food security and nutrition
- Role of Food technology in assuring food security in Nepal
- Functional foods and its importance, therapeutic nutrition and diet
- Supplementation, fortification and enrichment of foods
- Effect of processing on nutrients
- Underline causes and consequences of malnutrition and improvements of nutritional status of infants, pregnant and lactating mother. Double burden of malnutrition.
- Lifestyle diseases: diabetes mellitus, obesity, cardiovascular diseases, hypertension
- Food and nutrition surveys to assess the nutritional problems and develop practical measures to mitigate identified nutritional deficiency by food based approach.
- Natural occurrence of antinutritional factors in food, food toxicity and allergenicity. Methods of their removal.
- Different Nutritional surveys ( Dietary, Anthropometric and other) conducted so far in Nepal





- Organizational set ups and policy documents to carryout nutritional activities in Nepal
- International agencies in nutritional activities.

### **3. Industrial Microbiology**

- Industrial application of micro organisms
- Isolation and preservation of industrially important micro organisms
- Identification and physiological characteristics of industrially important microorganisms (Lactic acid bacteria, yeast and mold)
- Fermented foods and beverages
- Biochemical reaction and fermentation
- Industrial fermentation of organic acids ( vinegar, citric acid, lactic acid), amino acid ( L-glutamic acid, L- lysine and L-tryptophan), and vitamins ( vitamin B-12, riboflavin,  $\beta$ - carotene)
- Industrial production and purification of enzymes (amylase, glucoamylase, dextrin sucrose)
- Microbiological assay of vitamins and amino acids
- Principle and application of bioreactor, Solid Substrate Fermentation (SSF): Principle and application, Submerged Fermentation. Merits and demerits of Solid Substrate Fermentation and Submerged Fermentation
- Recent trends and developments in biotechnology
- Single cell protein, antibiotics and chemistry of microbial leaching.

### **4. Food Control Management**

- a. Concept of Quality control and Quality assurance
- b. Food Act, 2023 and Food Regulation, 2027 ; Feed Act, 2033 and Regulation, 2041
- c. Food Sampling and Inspection techniques
- d. Food adulteration and its control mechanism. Food safety and monitoring of contaminants in foods.
- e. Quality attributes of food and sensory evaluation
- f. Food standards and Codex Alimentarius Commission
- g. General concept of Sanitary and Phyto Sanitary (SPS) and Technical Barrier to Trade (TBT) in context of WTO
- h. Food plant sanitation and management
- i. General principle and application of Hazard Analysis and Critical Control Point (HACCP), Good Manufacturing Practice (GMP), International Standard Organization (ISO 9000-2000), Total Quality Management (TQM) and Good Agricultural Practice (GAP)
- j. Good Laboratory Practices (GLP), Laboratory Accreditations
- k. Principle and application: Enzyme Linked Immuno Sorbent Assay (ELISA), Gas Chromatography (GC), High Performance Liquid Chromatography (HPLC), Atomic Absorption Spectroscopy (AAS), Mass Spectrometry (MS), Infra Red and Ultra Violet Spectroscopy

- I. General concept of statistical quality control , sampling techniques, measures of location and dispersion, probability, test of significance (Chi-square test, T and Z tests, F-value)

