यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ।
प्रथम चरण: लिखित परीक्षा (Written Examination)  
द्वितीय चरण: अन्तरवार्ता (Interview)  

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१. प्रथम चरण (First Phase): लिखित परीक्षा (Written Examination)  

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Mark</th>
<th>Full Mark</th>
<th>Pass Mark</th>
<th>No. Questions (Q) x Mark (M)</th>
<th>Time Allowed</th>
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<tbody>
<tr>
<td>I</td>
<td>Part I: Management</td>
<td>20</td>
<td>100</td>
<td>40</td>
<td>2Q x 10M = 20 (Long Answer)</td>
<td>3.00 Hours</td>
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<tr>
<td></td>
<td>Part-II: Agriculture Research and development Issues</td>
<td>80</td>
<td>100</td>
<td>40</td>
<td>6Q x 10M = 60 (Short Answer)</td>
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<td></td>
<td></td>
<td></td>
<td>1Q x 20M = 20 (Long Answer)</td>
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</tr>
<tr>
<td>II</td>
<td>Technical Subject</td>
<td>100</td>
<td>100</td>
<td>40</td>
<td>5Q x 10M = 50 (Critical Analysis)</td>
<td>3.00 Hours</td>
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<td></td>
<td></td>
<td>2Q x 25M = 50 (Problem Solving)</td>
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२. द्वितीय चरण(Second Phase): Interview  

<table>
<thead>
<tr>
<th>Subject</th>
<th>Full Marks</th>
<th>System</th>
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</thead>
<tbody>
<tr>
<td>Interview</td>
<td>30</td>
<td>Oral</td>
</tr>
</tbody>
</table>

दृष्टिकोण:

१. यो पाठ्यक्रम योजनालाई प्रथम चरणमा लिखित परीक्षा र द्वितीय चरणमा अन्तरवार्ता परीक्षा गरी दुई चरणमा विभाजन गरिएको छ।
२. लिखित परीक्षाको पाठ्यक्रम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुबै हुन सक्ने छ।
३. समान पद/तहको प्रथम पत्र सबै उपस्थित को लागि पाठ्यक्रम एउटै भएको कारण एकलिप्त परीक्षा सम्चालन हुनेछ। तर द्वितीय पत्र Technical Subject को पाठ्यक्रम उपस्थित उन्मुक्त फारकत्यार अनुमुक्त फारकत्यार हुनेछ।
४. प्रथम र द्वितीय पत्रको लिखित परीक्षा छुट्टीहुने हुनेछ।
५. प्रथम पत्रकोPart-I Part-II को लागि हुक्का छृँट्रीहुने एक बाटा उन्नत पुस्तिका हुनेछन्।
६. परीक्षामा हुने प्रक्रियाको निवज्ञाप उपकरण तथा क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइँछ।
७. यस पाठ्यक्रम घोटाला अन्तर्लक्षण प्रतिशतको विषयभूमिका र लेखकको भएको पाठ्यक्रममा पेको काम, ऐन, नियम, नियमित तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगाडि (संस्थान भएका भएका र संस्थान भएका हटाइएका भएका र भएका संस्थान भएका) कायम रहेकालाई यस पाठ्यक्रममा पेको समानू हुन्छ।
८. पाठ्यक्रममा भएका यसासम्बन्ध सबै पाठ्यक्रमको प्रबन्धक हुने। प्रथम चरणको लिखित परीक्षावर छनौट भएका उमेदवारहरूलाई यस पाठ्यक्रममा पेको समानू हुन्छ।
९. प्रथम चरणको लिखित परीक्षाको छनौट भएका उमेदवारहरूको प्रासादक र द्वितीय चरणको अन्तरवार्ता प्राप्त भएको अर्को जोडी योग्यताक्रम अनुसार लिखित पाठ्यक्रम बाटो हुनेछ।
१०. पाठ्यक्रमलाई मिति: 2064। क. २।
११. यस भन्दा अगाडि लागै र भएको पाठ्यक्रम खारेज गरिएको छ।
Management and Agricultural Research and Development
(Common For all Sub-groups)

Part-I: Management

A. Management:
1. Concept, principles, functions, scope, challenge, leadership style
2. Participative Management: concept, opportunity, techniques of participation
3. Conflict management: concept, approaches to conflict, levels of conflict, causes of conflict and strategies for conflict management
4. Stress management: Concept, causes and sources of stress, techniques of stress management

B. Finance and Human Resource:
1. Human resources management: concepts, approaches and functions
2. Leadership: concept, opportunity and functions
3. Coordination: concept, need, types, techniques and approaches for effective coordination
4. Motivation: Concept, theories of motivation, reasons for low productivity, techniques of employ motivation
5. Decision making: importance, types, rational process of decision process
6. Financial management: concept, approaches, budget formulation, and implantation, auditing and reporting

Part-II: Agriculture Research and Development Issues

1. Constitution of Nepal: Food, agriculture and natural resources related issues
2. Current national agricultural policies, strategies and plans: National Agriculture Policy, Agricultural Biodiversity Policy, Climate Change Policy, Agriculture Development Strategy (ADS), Seed Vision, Poultry Policy, Pasture Policy and Floriculture Promotion Policy and agriculture related issues in periodic plan
3. Nepal Agriculture Research Council as National Agricultural Research System: national and global perspectives
4. International Agricultural Research Organizations: CGIAR and IARCS - CIAT, CIMMYT, CIP, ICRISAT, ICARDA, World Fish, ICAR, IFPRI, IITA, ILRI, Bioversity international, IRRI, IWMI, AVRDC, ICIMOD, ICRAF, IFDC, IFAD and FAO

5. Agricultural Innovation System: concept, actors, relationship between actors and accountability to stakeholders

6. Agricultural research farm management

7. Agricultural research project management: Problem and objective tree analysis, logframe development, effect and impact assessment and its linkage with technology users

8. Public private partnership in agriculture research

9. Entrepreneurs and agri-business development through agricultural research

10. Approaches of agricultural research in the context of federalism
1. **Concepts in Basic Horticulture and Physiology**
   1.1 Opportunities and potentialities for different fruits and plantation crops
   1.2 Constraints and remedies for production and marketing
   1.3 Area coverage, production and trade situation
   1.4 Physiological aspects of seed germination, dormancy, flowering, fruiting and ripening
   1.5 Plants growth regulators and their application
   1.6 Causes and mitigation measures of unfruitfulness in fruits and plantation crops

2. **Orchard Management and Production Technology of Native and Exotic Fruit and Plantation Crop Species**
   2.1 Environmental requirement and varieties
   2.2 Advance of soil and water management practices
   2.3 Canopy management
   2.4 Nutrient management
   2.5 Weed management
   2.6 Disease and insect pest management
   2.7 Abiotic and biotic stresses and their management
   2.8 High density planting; concepts, techniques, applications and constraints
   2.9 Organic production of fruits and plantation crops
   2.10 Precision horticulture; concepts, application and technologies in fruits and plantation crops
   2.11 Pollination management
   2.12 Protected cultivation

3. **Conservation and Varietal Improvement of Perennial Crops**
   3.1 Genetic diversity of fruits and plantation crops in Nepal
   3.2 Collection, conservation and use of germplasm
   3.3 Nature and strategies for variety improvement of fruits and plantation crop
   3.4 Propagation techniques
   3.5 Root stocks and their effects
   3.6 Use of biotechnology in horticulture
   3.7 Maintenance of fruits and plantation crops varieties

4. **Climate Change and Environmental Issues**
   4.1 Climate change causes and effect
   4.2 Impact of climate change on fruits and plantation crops
   4.3 Mitigation of adverse effect of climate change with special reference to fruits and plantation crops

5. **Postharvest Management and Marketing**
   5.1 Postharvest physiology of fruits and plantation crops
   5.2 Maturity indices, ripening and harvesting techniques
   5.3 Factors affecting postharvest losses and their management
5.4 Packing house operation; sorting, grading, curing, washing, waxing, de-greening, ripening, fumigation, disinfection, irradiation, heat treatment, packaging
5.5 Pre-cooling and cold-chain movement
5.6 Methods of storage
5.7 Management of postharvest disease pest and physiological disorders
5.8 Processing and preservation techniques
5.9 Sanitization, sanitary and phytosanitary requirements
5.10 Market value chain management

6. Research and Development
6.1 Fruit and plantation crop research and development programs in Nepal- critical review
6.2 Organizational structures for effective technology generation and its delivery
6.3 Research and development programs of Government on fruits and plantation crop: critical review
6.4 Linkages between extension and research for technology generation and delivery system
6.5 Strategies for import substitution and export promotion fruits and plantation crops
6.6 Opportunities and challenges of WTO and SAFTA for Nepalese fruits and plantation crops
6.7 Experimental design, data analysis and interpretation of results