ग्रामीण विकास लघुवित्त वित्तीय संस्था लि.
सहायक कम्प्युटर अधिकृत (छैटौं तह) पदको
खुला प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

प्रथम पत्र: बैकिङ्ग, तथा नेपालको अर्थतन्त्र सम्बन्धी	पूर्णाङ्क	समय	परीक्षा प्रणाली
	१००	३ घण्टा	विषयगत

यसमा निम्न लिखित विषयहरुमध्येबाट १२ प्रश्नहरू सोधिनेछन् । जसमध्ये १० वटा प्रश्नहरूको उत्तर दिनुपर्नेछ ।

(१०×१०)=१००

(१) बैकिङ्ग अवधारणा र नेपालमा बैकिङ्ग विकास

(२) बैकको अर्थ, प्रकार र कार्यहरु

(३) ग्रामीण क्षेत्रमा लघुवित्त सेवाको पहुँचको वर्तमान स्थिति र विस्तारको सम्भावना

(४) नेपालको अर्थतन्त्रमा लघुवित्त वित्तीय संस्थाले पुऱ्याएको योगदान

(५) नेपालमा लघुवित्तको वर्तमान अवस्था, विद्यमान चुनौती, समस्या र समाधानका उपायहरु

(६) बैकिङ्ग क्षेत्रमा संस्थागत सुशासन र वित्तीय अनुशासनको आवश्यक्ता र महत्व

(७) आर्थिक योजनाको अर्थ, आवश्यकता र योजना तर्जुमा प्रकृया

(८) बजेटको अर्थ र बजेट तर्जुमा प्रकृया

(९) ग्रामीण अर्थतन्त्रको बनौट, विशेषता, विद्यमान समस्या र समाधानका उपायहरु

(१०) गरिवीको अवस्था, गरिवीका कारण, प्रभाव, विगतमा भएका संस्थागत प्रयास र प्रभावकारिता

(११) ग्रामीण महिलाको सामाजिक तथा आर्थिक अवस्था

(१२) महिला शसक्तिकरण र आर्थिक विकास बीच अन्तर सम्बन्ध

(१३) व्यवस्थापनमा सूचना तथा सञ्चार प्रणालीको आवश्यकता र भूमिका

(१४) व्यवस्थापनका विभिन्न पक्षहरु (नेतृत्व, उत्प्रेरणा, निर्णय प्रकृया र नियन्त्रण)

ग्रामीण विकास लघुवित्त वित्तीय संस्था लि.

सहायक कम्प्युटर अधिकृत (छैटौं तह) पदको

खुला प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

द्वितीय पत्र: कम्प्युटर सम्बन्धी	पूर्णाङ्क	समय	परीक्षा प्रणाली
	१००	३ घण्टा	विषयगत

यसमा निम्न लिखित विषयहरुमध्येबाट १२ प्रश्नहरू सोधिनेछन् । जसमध्ये १० वटा प्रश्नहरूको उत्तर दिनुपर्नेछ ।

(१०×१०)=१००

1. Computer Architecture
    - Basics of Computer Architecture, Registers, Memory Hierarchy, Cache Memory, External Memory, Memory Management, Direct & Indirect addressing
    - Organization of hard disk, RAID, Interrupt, Auxiliary Memory, Virtual Memory, Address Space, Paging
    - CPU Architecture, Parallel Processing, CISC, RISC, Control Unit
    - I/O Management, I/O Interface, I/O Requests Handling, I/O Devices
2. Digital Design
    - Digital and Analog systems, Number systems
    - Logic Elements
    - Combinational Logic Circuits
    - Sequential Logic
    - Arithmetic Circuits
    - MSI Logic Circuits
    - Counters and Registers
    - IC Logic families
    - Interfacing with Analog Devices
    - Memory Devices
3. Basic Electronics
    - Semiconductors, Diodes and Diode Circuits, Transistor
    - Transiter modeling
    - Biasing Amplification
    - Small signal Amplifiers and frequency response
    - Large signal Amplifiers, Feedback amplifiers and Oscillators
    - Operational Amplifiers
4. Computer Programming:
    - Procedural and Object-Oriented Programming,
    - Software Development Models, SDLC
    - Procedures and Functions
5. Data Structure and Algorithm:

- Stack, Queue, Linked list, Tree, Graph, Hashing, Sorting, Searching, Analysis of Algorithms

6. Software Engineering principles
   - Software process
   - Software project management
   - System Analysis
   - Software design
   - Testing and Implementation
7. Database

   Introduction (Application/Usage) of DBMS & RDBMS, ER concept, SQL for manipulating database objects and information from database, Normalization, Backup and restore, data mining and data warehousing
8. Operating System
   - Introduction to Operating System, Type of Operating System, Function of Operating System, Memory Management using Operating System, 32 bit and 64 bit Operating System
   - Distributed OS
   - Windows and Linux Features
9. Computer Networks
   - Introduction to computer network, Network architecture (LAN, MAN, WAN), Client server and peer-to-peer model, LAN architecture/standards (Token ring, Token bus).
   - OSI Reference model, TCP/IP Reference model, Network Hardware and Software (NIC, Repeater, Hub, Bridge, Switch, Router, Gateway, DNS)
   - Introduction to wireless LAN, Wi-Fi, TCP/IP, Subnet Mask and Subnetting, Classfull and Classless IP Addressing; Network Address Translation (NAT), Routing & Switching,
   - Concepts on adding and removing devices in the network and domains. Sharing resources in the network.
10. Network security
    - Cryptography, Digital Signature, Firewalls, Virtual Private Network (VPN), Data Encryption Standard
11. Artificial Intelligence
    - Search
    - Natural language processing
    - Game Playing
    - Learning
    - Automated reasoning
    - Planning
    - Vision and Robotics

12. Compiler Design
    - The structure of a compiler

- Lexical Analyzer
- Top-down Parsing/Bottom up passing
- Syntax Directed Translation
- Types and Type Checking
- Run-Time Storage Administration
- Intermediate Code generation
- Data-Flow Analysis and Code optimization
- Architecture and recent development on compilers

13. Multimedia Technology
    - Sound / Audio System, Image and Graphics, Video and Animation, Data Compression, Teleconference, Data Synchronization
14. Web Technology
    - HTML: Understanding Browsers, HTML Page Structure, Defining Web Layout, HTML Tags, Working with text/images/Tables/list/Links/ forms and its controls (Radio button, Check box, Text box, Drop-down list etc) , knowing get and post action, Use attribute Size/Max-length/Name attributes, Add/Submit/Reset Button;
    - Script: Introduction to various types of script, working with variables & functions, working with alert, confirm and prompt, understanding loop, arrays, creating rollover image, Working with operators;
    - Style sheet : Introduction to Cascading Style Sheets, Types of Style Sheets (Inline, Internal and External), Class Selector, ID Selector Absolute Relative Positioning, Inline menu, CSS Layout Design, PSD to CSS Conversion
    - XML
15. Emerging Technology
    - Modeling and simulation
    - Parallel and distributed computing
    - High speed networks
    - Artificial Neural network and computer vision
    - Adaptive web Technology
    - Software Architecture
    - Distributed Object Technology (ORB, DCOM)
    - Speech signal processing
    - Cryptography and network Security
    - E-commerce
    - Software project management
    - Embedded system
    - Image processing
    - Multimedia Expert system
    - GIS/Remote sensing/GPS
16. Prevailing ICT related act, rules and regulation.