



मालारानी गाउँपालिका

गाउँ कार्यपालिकाको कार्यालय



पत्र संख्या :

चलानी नम्बर :

खनदह, अर्घाखाँची
लुम्बिनी प्रदेश, नेपाल
सुनसरी, अर्घाखाँची
लुम्बिनी प्रदेश, नेपाल

कर्मचारी आवश्यकता सम्बन्धि सूचना

प्रकाशित मिति: २०७८/०४/१८

Provincial and Local Governance Support Program (PLGSP) अन्तर्गत यस गाउँकार्यपालिकाको कार्यालयको लागि तपसिल बमोजिमको कर्मचारी सेवा करार मार्फत पदपूर्ति गर्नुपर्ने भएकाले तोकिएको योग्यता पुगेका इच्छुक नेपाली नागरिकहरूबाट आवश्यक कागजातहरू सहित यो सूचना प्रकाशन भएको मितिले १५ (पन्ध्र) दिन भित्र यस गाउँ कार्यपालिकाको कार्यालयमा दरखास्तका लागि आह्वान गरिन्छ ।

विज्ञापन नं.	पद	पद संख्या	न्यूनतम शैक्षिक योग्यता
०१-२०७८/०७९	सूचना प्रविधि अधिकृत (IT Officer)	१ जना	कम्प्युटर Science मा स्नातक वा Engineering मा स्नातक वा प्रमुख विषय कम्प्युटर Science लिई ३ वर्षे स्नातक वा विज्ञान (Physics) मा स्नातक गरि स्वीकृत संस्थाबाट System Analysis Design र Software development मा कम्तिमा ९ महिनाको डिप्लोमा प्राप्त वा BIT, BIM, BBIS, BCA, BCIS, BEIT, BSc.Cs/IT, B-ed csIT उत्तिर्ण

दरखास्त दिने उमेर: २१ वर्ष पुरा भई ३५ वर्ष ननाघेको (महिलाको हकमा २१ वर्ष पुरा भई ४० वर्ष ननाघेको)

दरखास्त दिने स्थान: मालारानी गाउँ कार्यपालिकाको कार्यालय खनदह अर्घाखाँची ।

दरखास्त दिने अन्तिम मिति: २०७८ साल श्रावण ३२ गते कार्यालय समय भित्र ।

परीक्षा मिति: संक्षिप्त सुची प्रकाशन गर्दा सोही सूचनामा लिखित र मौखिक परीक्षाको मिति तोकिएको छ ।

पेश गर्नुपर्ने कागजातहरू: लोकसेवा आयोगको ढाँचाको आवेदन फारम, नेपाली नागरिकताको प्रमाणपत्रको प्रमाणित प्रतिलिपी, शैक्षिक योग्यताको प्रमाणपत्रको प्रमाणित प्रतिलिपी, नेपाल बाहिर अध्ययन गरेको भए समकक्षताको प्रमाणपत्र, कार्य अनुभवका प्रमाणित कागजातहरू ।


दरखास्त दस्तुर: मालारानी गाउँपालिकाको मेगा बैंक लि. अर्घाखाँची शाखामा रहेको आन्तरिक राजश्व खाता नं. ००४००१०११९७४३ मा रु १००० (अक्षरपी एक हजार मात्र) जम्मा गरेको भौचर वा मालारानी गाउँ कार्यपालिकाको कार्यालयको राजश्व शाखामा तोकिएको दस्तुर जम्मा गरेको रसिदको सक्कल प्रति पेश गर्नुपर्नेछ ।

छनौट विधि: मन्त्रालयले तोकेको मापदण्ड अनुसार संक्षिप्त सुची प्रकाशन, लिखित, मौखिक र प्रयोगात्मक परीक्षा ।

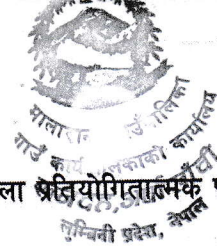
सेवा सर्त: संघीय मामिला तथा सामान्य प्रशासन मन्त्रालयले तोके बमोजिम ।

सेवा सुविधा: नियमानुसार ।

नोट: परीक्षाको पाठ्यक्रम गाउँपालिकाको वेबसाईटमा यसै सूचना साथ संलग्न गरिएको छ ।


...मेधा गन्धी...
प्रमुख प्रशासकीय अधिकृत

लोक सेवा आयोग
नेपाल विविध सेवा, राजपत्राङ्कित तृतीय श्रेणी, कम्प्युटर अधिकृत पदको खुला प्रतियोगितात्मक परीक्षाको
पाठ्यक्रम



(Paper II): Technical Subject

1. **Computer Fundamentals** (10 %)
 - 1.1 Computers, Kinds of Computers in respect of size and function
 - 1.2 Generation of Computers
 - 1.3 Components and Architecture of Computers, Connecting the Components,
 - 1.4 Getting started: Orientation to personal computers, system unit, Starting the computers
 - 1.5 Input Devices: keyboard, mouse, other input devices
 - 1.6 Processing: CPU, Memory
 - 1.7 Storages devices: Overview of Storage Devices, Floppy Disk Drive, Hard Drive, Universal Serial Bus (USB) Devices and Other Storage Devices
 - 1.8 Output devices: Monitors, Printers, Modems, Soundboards
 - 1.9 Dos survival guide: Using Command Prompt, Creating and using AUTOEXEC.BAT and CONFIG.SYS
 - 1.10 Windows survival guide: Windows Desktop, Program Manager, Organizing the Desktop, File Manager
 - 1.11 Application software: Using Application Software
 - 1.12 Windows Explorer, E-mails, Internet, Intranet, Extranets, Ethernet, HTTP
 - 1.13 Computer Viruses, Antivirus
2. **Data Structure and Algorithms** (8%)
 - 2.1 Fundamental of Data Structures, Abstract Data types
 - 2.2 Lists, Linked Lists, Stacks
 - 2.3 Queues, Priority Queue
 - 2.4 Trees: Traversal, Implementations, Binary Trees, Binary Search Trees, Balanced Search Trees, AVL Trees
 - 2.5 Indexing Methods. Hashing Trees, Suffix Trees
 - 2.6 Worst-Case and Expected time Complexity
 - 2.7 Analysis of Simple Recursive and Nonrecursive Algorithms
 - 2.8 Searching, Merging and Sorting
 - 2.9 Introductory Notions of algorithm design: Divide-and-Conquer, Dynamic Programming, Greedy Methods, Backtracking
 - 2.10 Graph algorithms: Depth-first Search and Breadth-first Search, Shortest Path Problems, Minimum Spanning Trees, Directed Acyclic Graphs
3. **Programming Language** (10%)
 - 3.1 Overview of Programming Language: History, Programming Paradigms, The role of Language translates in the Programming Process.
 - 3.2 Fundamental Issues in Language Design.
 - 3.3 Virtual Machines, Code Generation, Loop Optimization.
 - 3.4 Concept of Procedural Programming, Structural Programming, Object-Oriented Programming.
 - 3.5 Concept of C programming, C++ Programming,
 - 3.6 Java Programming for Declaration, Modularity and Storage Management Software Development

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- (10%)**
- 4. System Analysis and Design**
- 4.1 Definition of the System, System Owner, System User, System Designers and system Builders, System Analysts, Variations on the System Analyst title, System life Cycle
 - 4.2 Joint Application Development (JAD): JAD definition, JAD purpose, JAD Philosophy, JAD Scope
 - 4.3 Involved in a JAD: Sponsor, Business Users, System Analyst
 - 4.4 Roles of JAD Group Member: Project Leader, Record Keeper, Time Keeper.
 - 4.5 System Design Environment: Development Process, Management Process, System Structure, Basic Component of Computer based Information System, Personal/ Centralized/Distribution System
 - 4.6 Concept formations: Introduction, Finding the Problem, Evaluating the Proposal, Technical Feasibility, Operational Feasibility, Economic Feasibility.
 - 4.7 Requirements analysis: Representing System Analysis Model, Requirement Model, Design Model
 - 4.8 Development Process: Design Method
 - 4.9 Entity Relationship Diagram (E-R Diagram): Notations, Entities: Strong Entities, Weak Entities, Attributes: Simple and Composite, Single Valued and Multiple Valued, Null and Derived Attribute
 - 4.10 Relationship Sets: Degree of Relationship and Cardinality Relationship, Specialization, Generalization, Aggregation
 - 4.11 Data Flow Diagrams (DFDs): Introductions, Data flow Diagram, Symbol, Files or data store, External entities, Data flows
 - 4.12 Describing System by Data Flow Diagram: Context diagram, Top level DFD, Expansion Level DFD, Conversions of Data
 - 4.13 Object Modeling: Object -Oriented Concept, Object Structure, Object Feature, Class and Object
 - 4.14 Representation: Association, Composition, Inheritance, Multiple Inheritances
 - 4.15 Modeling: Use Case Diagram, State Diagram, Event Flow Diagram.
 - 4.16 Documentation: Automatic and Manual System
- (14%)**
- 5. Operating Systems**
- 5.1 Definition, Development and Functions of Operating Systems
 - 5.2 Basic components of the Operating Systems, Information Storage and Management Systems
 - 5.3 Disk Allocation and Scheduling Methods, Basic Memory Management strategies, Virtual Memory Management Techniques, Define a Process and features of the Process Management System
 - 5.4 Features of Process Scheduling; List the features of Inter-Process Communication and Deadlocks
 - 5.5 Concepts of Parallel and Distributed Processing, Identify Security Threats to Operating Systems
 - 5.6 Overview of the MS-DOS Operating System
 - 5.7 Introduction to the Windows Family of Products, Unix Family of Products, Linux Family of Products
 - 5.8 Introduction to Windows Networking
 - 5.9 Windows Architecture, Linux Architecture

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- 5.10 Troubleshooting Windows & Linux
- 5.11 Managing Network Printing
- 5.12 Managing Hard Disks and Partitions
- 5.13 Monitoring and Troubleshooting Windows
- 5.14 Users, Groups and Permission Linux and Windows

6. Database Management System and Design

(8%)

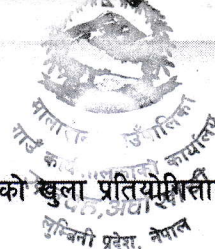
- 6.1 Introduction, A Database Model, Relational Database Model, Integrity, RDBMS
- 6.2 SQL and Embedded SQL
- 6.3 Writing Basic SQL SELECT Statements
- 6.4 Restricting and Sorting data
- 6.5 Single Row Functions
- 6.6 Displaying Data from Multiple Tables
- 6.7 Aggregation Data Using Group Functions
- 6.8 Sub Queries, Manipulating Data and Creating & Managing Tables
- 6.9 Creating Views and Controlling User Access
- 6.10 Using Set Operators, Datetime Function
- 6.11 Database Design: Logical Design, Conceptual Design, Mapping Conceptual to Logical, Pragmatic issues, Physical Design, Integrity and Correctness, Relational Algebra, Relational Calculus
- 6.12 Normalization: 1NF, 2NF, 3NF, BCNF, 4NF, 5NF, DKNF
- 6.13 Architecture of DBMS: Client-server, Open Architectures, Transaction Processing, Multi-User & Concurrency, and Backup & Recovery Database
- 6.14 Basic Concept of major RDBMS products: Oracle, Sybase, DB2, SQL Server and other Databases

7. Networking

(10%)

- 7.1 Basic Network Theory: Network Definition, Network Models, Connectivity, Network Addressing.
- 7.2 Network Connectivity: Data Package, Establishing a Connection, Reliable Delivery, Network Connectivity, Noise Control, Building Codes, Connection Devices
- 7.3 Advanced Network Theory: OSI model, Ethernet, Network Resources, Token ring, FDDI, Wireless Networking
- 7.4 Common Network Protocols: Families of Protocols, NetBEUI, Bridge and Switches, TCP/IP Protocol, Building TCP/IP Network, TCP/IP Suite
- 7.5 TCP/IP Services: Dynamic Host Configuration Protocol, DNS Name Resolution, NetBIOS support, SNMP, TCP/IP Utilities, FTP
- 7.6 Network LAN Infrastructure: LAN Protocols on a Network, IP Routing, IP Routing Tables, Router Discovery Protocols, Data Movement in a Routed Network, Virtual LANs (VLANs)
- 7.7 Network WAN Infrastructure: WAN Environment, Wan Transmission Technologies, Wan Connectivity Devices, Voice Over Data Services
- 7.8 Remote Networking: Remote Networking, Remote Access protocols, VPN Technologies
- 7.9 Computer Security: Computer Virus, Worm, Trojan Horse
- 7.10 Network Security: Introduction, Virus Protection, Local Security, Network Access, Internet Security

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- 7.11 Disaster Recovery: Need for Disaster Recovery, Disaster Recovery plan, Data backup, Fault Tolerance
- 7.12 Advanced Data Storage Techniques: Enterprise Data Storage, Clustering, Network Attached Storage, Storage Area Networks
- 7.13 Network Troubleshooting: Using Systematic Approach to Troubleshooting.
- 7.14 Network Support Tools: Utilities, Network Baseline
- 7.15 Network Access Points, Common Network Component, Common Peripheral Ports
8. **Computer Architecture & Organization** (4%)
 - 8.1 Evaluation of Computers, Design Methodology, Set Architecture, MIPS ISA, ALU Design
 - 8.2 Datapath Design: Single and Multiple Cycle Implementations, Pipelining, Memory Hierarchy, Input/Output System: Bus & Role of Operating System
9. **Compiler Design** (2%)
 - 9.1 Introduction to Compiling
 - 9.2 Logical Analysis, Syntax Analysis, Semantic Analysis
 - 9.3 Run Time environment
 - 9.4 Intermediate Code Generation, Code Optimization
 - 9.5 Compiler Generation Tools
10. **E-Commerce Technology** (4%)
 - 10.1 Introduction to E-Commerce
 - 10.2 Electronic Commerce Strategies
 - 10.3 Electronic Commerce Security Issues
 - 10.4 Success Models of E-Governance
 - 10.5 **E-Business:** b2b, b2c, b2e, c2c, g2g, g2c
 - 10.6 Principles of Electronic Payment, Strategies & Systems
 - 10.7 E-marketing, Reverse Engineering
 - 10.8 E-Banking, EDI Methods, SWIFT
 - 10.9 Encryption and Decryption Methods, XML, Layout Managers, Event Model
11. **MIS and Web Engineering** (10%)
 - 11.1 Information Systems, Client-Server Computing
 - 11.2 Information Systems and Decision Making.
 - 11.3 Database Design issues, Data Mining, Data Warehousing
 - 11.4 Knowledge Management, The strategic use of Information Technology.
 - 11.5 Work Process Redesign (Reengineering) with Information Technology, Enterprise Resources Planning Systems, Information Systems Security, Information Privacy, and Global Information Technology issues
 - 11.6 Software Supported Demonstrations including advanced Spreadsheet topics Software Component Based Systems (CBSE)
 - 11.7 Multimedia
 - 11.8 Object-Oriented Programming with COMS & DECOMS
 - 11.9 Group Decision Support Systems
 - 11.10 Basics of Website Design
12. **IT in Nepal** (10%)
 - 12.1 History of IT in Nepal
 - 12.2 IT Policy of Nepal
 - 12.3 Electronic Transaction Act
 - 12.4 Copyright Act
 - 12.5 Uses of Computers and Software Development
 - 12.6 Nepali Unicode, Nepali Fonts
 - 12.7 Licensing Issues