जोरायल गाउँपालिका गाउँ कार्यपालिकाको कार्यालय रावतकट्टे, डोटी सुदूरपश्चिम प्रदेश, नेपाल



जोरायल गाउँपालिका सूचना प्रविधि अधिकृत छनौट प्रक्रिया (पदपूर्ति समितिद्धारा तयार गरिएको)

सूचना प्रविधि अधिकृत छनौट प्रक्रियालाई तीन चरणमा विभाजन गरिएको छ ।

क. प्रारम्भिक चरणः- १०० अंक ख. मध्यम चरणः- १४० अंक ग. अन्तिम चरणः- २० अंक

क. प्रारम्भिक चरणः- १०० अंक १. छोटो सूची (Short List): १०० अंक

ख. मध्यम चरणः- १४० अंक

१. लिखित परीक्षाः १०० अंक

२. प्रयोगात्मक परीक्षाः ५० अंक

ग. अन्तिम चरणः- २० अंक

१. अन्तर्वार्ताः २० अंक



सूचना प्रविधि अधिकृत पदको छोटो सूची (Short List) मापदण्ड

(स्थानीय शासन तथा सामुदायिक विकास कार्यक्रम, कार्यक्रम समन्वय इकाईले सूचना प्रविधि अधिकृतको करार सेवा सम्बन्धमा तयार पारिएको मापदण्डको आधारमा तयार पारिएको)

क.सं.	संचकहरु	ਹਗੀਡ				
٩	शैक्षिक योग्यता (सूचना अनुसारको न्यूनतम शैक्षिक योग्यताको आधारमा)					
9.9	अंक अंकित स्तर निर्धारण पद्धति भएका विश्व विद्यालयको हकमा					
٩.٩.٩	८०% वा सो भन्दा माथि प्राप्ताङ्क भएको वा सम्बन्धित विषयमा तोकिए भन्दा माथिल्लो शैक्षिक उपाधि भएको					
9.9.2	६५% देखी ७९.९९% सम्म प्राप्ताङ्क भएको	२४				
٩.٩.३	११% देखी ६४.९९% सम्म प्राप्ताङ्क भएको	95				
۹.۹.४	४ ५% भन्दा कम प्राप्ताङ्क भएको	92				
٩.२	अक्षर अंकित स्तर निर्धारण पद्धति (Letter Grading System) भएका विश्व विद्यालयको हकमा					
٩.२.१	Cumulative Grading Point Average (३.४ देखी ४ सम्म) वा सम्बन्धित विषयमा तोकिए भन्दा माथिल्लो शैक्षिक उपाधि भएको					
9.2.2	Cumulative Grading Point Average(३ देखी ३.४ भन्दा कम)					
१.२.३	Cumulative Grading Point Average (२.४ देखी ३ भन्दा कम)					
٩.२.४	अन्य	9२				
२	कार्य अनुभव (सूचना अनुसारको न्यूनतम शैक्षिक योग्यता हाँसिल गरे पश्चात)	80				
२.१	२ वर्ष भन्दा माथि सरकारी निकायमा । सेत्रमा कार्य अनुभव भएको	80				
२.२	१ वर्ष भन्दा माथि	30				
२.३	१ वर्ष सम्म	२०				
२.४	कार्य अनुभव नभएको	92				
ম	उम्मेदवारको स्थायी ठेगाना सम्बन्धि	20				
३.१	स्थायी ठेगाना सम्बन्धित स्थानीय तहमा भएमा	20				
३.२	स्थायी ठेगाना सम्बन्धित स्थानीय तहको जिल्लामा भएमा	9 6				
२.२	स्थायी ठेगाना सम्बन्धित स्थानीय तहको प्रदेशमा भएमा	92				
३.४	अन्य	5				
8	२ वर्ष भन्दा माथि स्थानीय शासन तथा सामुदायिक विकास कार्यक्रममा ICT Volunteer वा Expert वा अन्य कुनै सामुदायिक विकास कार्यक्रममा सूचना प्रविधि अधिकृतको रुपमा कार्य गरेको भएमा	90				

नोटः माथि उल्लेखित सूचकहरुको आधारमा न्यूनतम ४० % अंक प्राप्त गर्ने उम्मेदवारहरुलाई छोटो सूची (Short List) मा समावेश गरी छनौटको प्रक्रिया अगाडी बढाइनेछ ।



सूचना प्रविधि अधिकृत पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यऋम (लोक सेवा आयोग, नेपाल विविध सेवा, राजपत्राङ्कित तृतीय श्रेणी, कम्प्युटर अधिकृत पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यऋमको आधारमा तयार पारिएको)

यस पाठ्यऋम योजनालाई दुई चरणमा विभाजन गरिएको छ ।

प्रथम चरणः (क) लिखित परीक्षा, पूर्णाङ्क - १०० (ख) प्रयोगात्मक परीक्षा, पूर्णाङ्क - ५० द्वितीय चरणः अन्तर्वार्ता, पूर्णाङ्क - २०

प्रथम चरणः (क) लिखित परीक्षा, पूर्णाङ्क - १००

पत्र	विषय	खण्ड	पूर्णाङ्क	उर्तीणाङ्क	परीक्षा प्रणाली	प्रश्न संख्या × अङ्क	समय
प्रथम	General Subject	Part:l General Awareness & General Ability Test	٩٥٥	80	वस्तुगत	५ ०प्रश्न × १अङ्क	१ घण्टा
		Part : II General Technical Subject			बहुवकाल्पक	हुवकल्पिक ४० प्रश्न × १अङ्क	३० मिनेट

प्रथम चरणः (ख) प्रयोगात्मक परीक्षा, पूर्णाङ्क - ५०

पत्र ∕ विषय	पूर्णाङ्क	उर्तीणाङ्क	परीक्षा	परीक्षाको एकाई	प्रश्न संख्या × अङ्ग	समय
			प्रणाली			
प्रयोगात्मक परीक्षा	४०	४० २४ प्रयोगात्मक	प्रयोगात्मक	Operating Systems	१ प्रश्न × १० अङ्क	
				Database		१ घण्टा ३० मिनेट
				Management System	२ प्रश्न × १० अङ्क	
				and Design		
				Programming	9 मध्य ४ 9 ० अड	
				Language	XA × 10 Mg	
			Networking	१ प्रश्न × १० अङ्क		

नोटः लिखित र प्रयोगात्मक परीक्षामा उर्तीर्ण उम्मेदवारहरुलाई अन्तर्वार्ताको लागि सिफारिस गरिनेछ ।

दितीय चरणः अन्तर्वार्ता, पूर्णाङ्क - २०

विषय	पूर्णाङ्क	उर्तीणाङ्क	क्षेत्र	अङ्क	परीक्षा प्रणाली	समय
	२०	Б	प्रस्तुतीकरण क्षमता	X		90 \$
अन्तर्वार्ता			अनुशासन	X	मौखिक	
-			विषयवस्तु सम्बन्धी ज्ञान	90		14.

नोटः लिखित र प्रयोगात्मक तथा अन्तर्वार्तामा अधिकतम अंक प्राप्त गर्ने उम्मेदवारलाई करार नियुक्तिका लागि सिफारिस गरिनेछ ।

प्रथम पत्र (Paper I): General Subject



Part (I) : - General Awareness & General Ability Test (50 Marks)

1. General Awareness and Contemporary Issues (25 ×1 Mark = 25 Marks)

1.1 Physical, socio-cultural and economic geography and demography of Nepal

1.2 Major natural resources of Nepal

1.3 Geographical diversity, climatic conditions, and livelihood & lifestyle of people

1.4 Notable events and personalities, social, cultural and economic conditions in modern history of Nepal

1.5 Current periodical plan of Nepal

1.6 Information on sustainable development, environment, pollution, climate change, biodiversity, science and technology

1.7 Nepal's international affairs and general information on the UNO, SAARC & BIMSTEC

1.8 The Constitution of Nepal (From Part 1 to 5 and Schedules)

1.9 Governance system and Government (Federal, Provincial and Local)

1.10 Provisions of civil service act and regulation relating to constitution of civil service, organisational structure, posts of service, fulfillment of vacancy and code of conduct

1.11 Functional scope of public services

1.12 Public Service Charter

1.13 Concept, objective and importance of public policy

1.14 Fundamentals of management : planning, organizing, directing, controlling, coordinating, decision making, motivation and leadership

1.15 Government planning, budgeting and accounting system

1.16 Major events and current affairs of national and international importance

2. General Ability Test (25×1 Mark = 25 Marks)

2.1 Verbal Ability Test(8×1 Mark = 8 Marks)

Jumble words, Series, Analogy, Classification, Coding-Decoding, Matrix, Ranking Order Test, Direction and Distance Sense Test, Common Sense Test, Logical Reasoning, Assertion and Reason, Statement and Conclusions

2.2 Numerical Ability Test (9×1 Mark = 9Marks)

Series, Analogy, Classification, Coding, Arithmetical reasoning/operation, Percentage, Ratio, Average, Loss& Profit, Time & Work, Data interpretation & Data verification

2.3 Non-verbal/Abstract Ability Test (8×1 Mark = 8 Marks)

Figure Series, Figure Analogy, Figure Classification, Figure Matrix, Pattern Completion/Finding, Analytical Reasoning Test, Figure Formation and Analysis, Rule Detection, Water images, Mirror images, Cubes and Dice&Venn-diagram



Part (II) : - General Technical Subject (50 Marks)

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. System Analysis and Design (10%)

3.1 Definition of the System, System Owner, System User, System Designers and system Builders, System Analysts, Variations on the System Analyst title, System life Cycle

3.2 Joint Application Development (JAD): JAD definition, JAD purpose, JAD Philosophy, JAD Scope

3.3 Involved in a JAD: Sponsor, Business Users, System Analyst

3.4 Roles of JAD Group Member: Project Leader, Record Keeper, Time Keeper.

3.5 **The System Design Environment:** Development Process, Management Process, System Structure, Basic Component of Computer based Information System, Personal/ Centralized/Distribution System

3.6 **Concept formations:** Introduction, Finding the Problem, Evaluating the Proposal, Technical Feasibility, Operational Feasibility, Economic Feasibility.

3.7 Requirements analysis: Representing System Analysis Model, Requirement Model, Design Model

3.8 Development Process: Design Method

3.9 Entity Relationship Diagram (E-R Diagram): Notations, Entities: Strong Entities, Weak Traces, Strong Entities, Attributes: Simple and Composite, Single Valued and Multiple Valued, Null and Roos Derived Attribute

3.10 Relationship Sets: Degree of Relationship and Cardinality Relationship, Specialization, Generalization, Aggregation

3.11 Data Flow Diagrams (DFDs): Introductions, Data flow Diagram, Symbol, Files or data store, External entities, Data flows,

3.12 **Describing System by Data Flow Diagram:** Context diagram, Top level DFD, Expansion Level DFD, Conversions of Data.

3.13 Object Modeling: Object -Oriented Concept, Object Structure, Object Feature, Class and Object

3.14 Representation: Association, Composition, Inheritance, Multiple Inheritances

3.15 Modeling: Use Case Diagram, State Diagram, Event Flow Diagram.

3.16 Documentation: Automatic and Manual System

4. Operating Systems (10%)

4.1 Definittion, Development and Functions of Operating Systems

4.2 Basic components of the Operating Systems, Information Storage and Management Systems

4.3 Disk Allocation and Scheduling Methods, Basic Memory Management strategies, Virtual Memory Management Techniques, Define a Process and features of the Process Management System

4.4 Features of Process Scheduling; List the features of Inter-Process Communication and Deadlocks

4.5 Concepts of Parallel and Distributed Processing, Identify Security Threats to Operating Systems

4.6 Overview of the MS-DOS Operating System

4.7 Introduction to the Windows Family of Products, Unix Family of Products, Linux Family of Products

4.8 Introduction to Windows Networking

4.9 Windows Architecture, Linux Architecture

4.10 Troubleshooting Windows & Linux

4.11 Managing Network Printing

4.12 Managing Hard Disks and Partitions

4.13 Monitoring and Troubleshooting Windows

4.14 Users, Groups and Permission Linux and Windows

5. Database Management System and Design (14%)

5.1 Introduction, A Database Model, Relational Database Model, Integrity, RDBMS

5.2 SQL and Embedded SQL

5.3 Writing Basic SQL SELECT Statements

5.4 Restricting and Sorting data

5.5 Single Row Functions

5.6 Displaying Data from Multiple Tables

5.7 Aggregation Data Using Group Functions

5.8 Sub Queries, Manipulating Data and Creating & Managing Tables

5.9 Creating Views and Controlling User Access

5.10 Using Set Operators, Datetime Function

5.11 Database Design: Logical Design, Conceptual Design, Mapping Conceptual to Logical, Pragmatic issues, Physical Design, Integrity and Correctness, Relational Algebra, Relational Calculus

5.12 Normalization: 1NF, 2NF, 3NF, BCNF, 4NF, 5NF, DKNF

5.13 Architecture of DBMS: Client-server, Open Architectures, Transaction Processing, Multiver User & Concurrency, and Backup & Recovery Database

5.14 Basic Concept of major RDBMS products: Oracle, Sybase, DB2, SQL Server and other Databases

6. Programming Language (8%)

6.1 Overview of Programming Language: History, Programming Paradigms, The role of Language translates in the Programming Process.

6.2 Fundamental Issues in Language Design.

6.3 Virtual Machines, Code Generation, Loop Optimization.

6.4 Concept of Procedural Programming, Structural Programming, Object-Oriented Programming.

6.5 Concept of C programming, C++ Programming,

6.6 Java Programming for Declaration, Modularity and Storage Management Software Development

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

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. Complier 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

गको कायाँ

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

12.3 Licensing Issues