

मधेश विश्वविद्यालय, वीरगंज, पर्सा  
प्राविधिक तर्फ सूचना प्रविधि अधिकृत वा सो सरह पदको लिखित परीक्षाको पाठ्यक्रम-२०८३  
लिखित परीक्षा पाठ्यक्रम-२०८३

पत्र र विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या र अंक	समय
General Awareness & Reasoning test and Technical Subject	५०	२४	बस्तुगत	२०x१=२०	३० मिनेट
			विषयगत	४x५=२० १x१०=१०	१:१५ घण्टा

**द्रष्टव्य:**

- लिखित परीक्षाको लागि ५० पूर्णाङ्कको विषयगत र बस्तुगत पत्रहरु छुट्टाछुट्टै हुनेछ ।
- प्रश्न उत्तरको माध्यम अंग्रेजी वा नेपाली हुनेछ ।

**1. General Awareness (10 Marks)**

- Physical, Socio-Cultural and Economic geography and demography of Nepal
- Fundamentals of Management: planning, organizing, directing, controlling, coordinating, decision making, motivation & leadership
- Natural Resources of Nepal
- Information on sustainable development, environment, pollution, climate change, biodiversity, Science & Technology
- Current affairs of national & international importance
- Functional Scope of University of Nepal

**2 General Reasoning Test (10 Marks)**

- Logical Reasoning: verbal ability, alphanumeric series, assertion & reason, order & Ranking, Distance & Directions, Coding-Decoding, Reasoning analogies, input-output, Venn-diagram, Analytical & Logical Reasoning
- Numerical Reasoning: Arithmetical Reasoning, Fraction percentage, Arithmetic Series, Analogy, Profit & loss, Time & Work, Date & Calendar, Data interpretation & Data verification, percentage, Ratio
- Spatial Reasoning: Figure Series & Analogy, Figure classification & Matrix, Mirror & Water image, Cubes & dices, Paper folding & Cutting, Pattern Images, embedded images, image formation & analysis

**3 Technical Subject**

**3.1 Computer Fundamentals (10 Marks)**

- Introduction to Computer System
- Basic Introductions of Hardware & Software
- Computer Memory: Introduction of Memory, Classification of Memory, Storage Devices, ALU, Register, CU
- Input/output Devices: Introduction of I/O Devices, Classifications of I/O Devices, Uses of I/O devices, Importance of I/O devices,
- Operating Systems and applications program,
- Computer System Configurations & Troubleshooting
- Computer virus and impact on hardware & Software

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**3.2 Computer Structure, Architecture & Network (10 Marks)**

- Introduction of Data Structure & Recursion, Sorting, Time & Space analysis of algorithm, Searching Techniques, Stack & Queue, Concept of Trees, Introduction of Notation
- Computer Architecture & organization, Microprocessor architecture, Addressing Modes, Input & Output architecture, Pipeline, Arithmetic & Logic Unit, I/O Programming, RISC & CISC Architecture, Memory Mapped
- Database management System & its application, ER Modeling, Normalization, Architecture of DBMS, Transaction Management & Concurrency Control, Crass Recovery, SQL Server, Concept of Data warehousing
- Computer Network & Architecture, Network Devices, IP Address Management, Network Security & its importance, Concept of Cryptography, Concept of Wired/Wireless Network, Network Troubleshooting, Disaster Recovery & Backup, Network Access Point
- Concept of Software Engineering & architectural Design, Software Quality Management, Project Management, Client Server Architecture, Multimedia Systems, Basic Concept of Website Design & Management system, Web server, Cloud System

**3.3 Recent IT Trends, Terminology & Policy (10 Marks)**

- E-governance & E-commerce, Computer Big data, Internet of Things, Concept of Artificial Intelligence & Machine Learning, Cloud & Cluster, Video Conferencing, Online meeting & Classes
- History of IT in Nepal, Digital Signature, Copyright Acts-2059 BS, Digital Nepal Framework-2076, Licensing Issues, E-bidding Concept, Electronic Transaction Act-2063, IT Policy in Nepal-2072, Concept of Public Procurement Act, Public Procurement Rules & Process
- UGC & It's Roles in higher Education of Nepal, Relationship between ministries & University, Strength & Challenges of IT in Nepal, Concept of E-attendance,

**The End**