

# नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेड

प्रधान कार्यालय, काठमाडौं

प्राविधिक सेवा, तह-५, वरिष्ठ सहायक, कम्प्युटर अपरेटर पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

## परीक्षा योजना

प्रथम चरण :- लिखित परीक्षा					पूर्णाङ्क :- २००	
पत्र	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली	प्रश्नसंख्या × अङ्क	समय
प्रथम	सेवा सम्बन्धी वस्तुगत	१००	४०	वस्तुगत (Objective)	५०×२=१००	४५ मिनेट
दोस्रो	सेवा सम्बन्धी विषयगत	१००	४०	विषयगत (Subjective)	१०×१०=१००	३ घण्टा
द्वितीय चरण :- कम्प्युटर प्रयोगात्मक परीक्षा तथा अन्तर्वार्ता					पूर्णाङ्क :- ६०	
क) कम्प्युटर प्रयोगात्मक परीक्षा		५०	२५	प्रयोगात्मक	७	४५ मिनेट
ख) व्यक्तिगत अन्तर्वार्ता		३०	—	मौखिक	—	—

### द्रष्टव्य :

- यो पाठ्यक्रम रूपरेखा/परीक्षा योजनामा प्रथम चरणमा लिखित परीक्षा र दोस्रो चरणमा कम्प्युटर प्रयोगात्मक परीक्षा तथा अन्तर्वार्ता गरी दुई चरणमा विभाजन गरिएको छ ।
- लिखित परीक्षाको माध्यम नेपाली वा अंग्रेजी वा नेपाली र अंग्रेजी दुवै भाषामा हुनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन ।
- लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूमात्र कम्प्युटर प्रयोगात्मक परीक्षा तथा अन्तर्वार्तामा सम्मिलित हुन पाउने छन् ।
- लिखित परीक्षा, कम्प्युटर प्रयोगात्मक परीक्षा र अन्तर्वार्ताको कुल अङ्क योगका आधारमा योग्यताक्रम अनुसार अन्तिम परीक्षाफल प्रकाशित गरिनेछ ।
- यस पाठ्यक्रममा समावेश भएका कानूनहरूमा परीक्षा हुनुभन्दा तीन (३) महिनापूर्व संशोधन भएको हकमा संशोधन अनुरूप नै हुनेछ ।
- पाठ्यक्रम लागू मिति :- २०७९/०४/२३

# नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेड

प्रधान कार्यालय ,काठमाडौं

प्राविधिक सेवा, तह-५, वरिष्ठ सहायक, कम्प्युटर अपरेटर पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

## **Paper I : Job - related Knowledge**

( Full marks 50x2=100)

### **1.Computer Fundamentals**

- 1.1. Definition, History, Generation, Characteristics, Types & Applications of Computers.
- 1.2. Overview of a computer system
  - 1.2.1. Data and data processing
  - 1.2.2. Hardware: Definition; Input Unit, CPU, Output Unit; Storage devices: Primary and Auxiliary Memory
  - 1.2.3. Software: Definition; Types of Software; Programming Language and its types
  - 1.2.4. Firmware and Cache Memory
- 1.3. Concept of Multimedia
- 1.4. File Management
  - 1.4.1. Physical structure of the disk
  - 1.4.2. Concept of file and folder
  - 1.4.3. Type of files and file extensions
- 1.5. Introduction to ASCII and Unicode standards

### **2. Operating System**

- 2.1. Introduction to Operating System
- 2.2. Types of Operating System
- 2.3. Functions of Operating Systems
- 2.4. Command line operation (e.g. copy command, move command, command to view and set different file attributes, etc.)
- 2.5. Windows Operating System
  - 2.5.1. Introduction to Graphical User Interface (GUI)
  - 2.5.2. Basic Windows Elements - Desktop, Taskbar, My Computer, Recycle Bin, etc.
  - 2.5.3. Starting and shutting down Windows
  - 2.5.4. File Management with Windows Explorer
  - 2.5.5. Windows applications: (Control Panel, Character Map, Paint)
  - 2.5.6. Finding files & folders and saving the result
  - 2.5.7. Starting a program by command line operation
  - 2.5.8. Changing Window Settings: Adding/Removing programs; Clearing the contents of document menu; Customizing the Taskbar; Control Panel items
  - 2.5.9. Creating shortcut (icons) on desktop
  - 2.5.10. System tools: disk scanning, disk defragmenter, backup, restore, format

### **3. Word Processing**

- 3.1. Concept of Word Processing
- 3.2. Creating, Saving, Opening, Previewing and Printing documents; Changing default settings
- 3.3. Elements of Word Processing environment (Menu, Toolbars, Status bar, Rulers, Scrollbars)
- 3.4. Copying, Moving, Deleting and Formatting text (Font, Size, Color, Alignment, Line & Paragraph Spacing); Finding and Replacing text; Setting Page Layout
- 3.5. Creating Lists with Bullets and Numbering
- 3.6. Creating and Manipulating Tables; Borders and Shading
- 3.7. Use of Indentation and Tab Setting; Creating Newspaper Style Documents using Column
- 3.8. Inserting Header, Footer, Footnotes, Endnotes, Page Numbers, File, Page break, Section break, Graphics, Pictures, Charts, Word Art, Symbols & Organization Chart
- 3.9. Mail Merge
- 3.10. Auto Correct, Spelling and Grammar Checking, and Thesaurus
- 3.11. Security Technique of Documents
- 3.12. Familiarity with Devanagari fonts

### **4. Electronic Spreadsheet**

- 4.1. Concept of Electronic Spreadsheet
- 4.2. Organization of Electronic Spreadsheet application (Cells, Rows, Columns, Worksheet, Workbook and Workspace)
- 4.3. Creating, Opening, Saving, Page Setting, Previewing and Printing Work Book; Changing default options
- 4.4. Elements of Electronic Spreadsheet Environment (Menu, Toolbars, Status bar, Rulers, Scrollbars)
- 4.5. Editing, Copying, Moving, Deleting Cell Contents; Formatting Cells (Font, Border, Pattern, Alignment, Number and Protection); Formatting Rows, Column and Sheets
- 4.6. Using Formula - Relative Cell and Absolute Cell Reference
- 4.7. Using basic Functions
- 4.8. Generating Series; Sorting and Filtering Data; Summarizing Data with Sub Totals
- 4.9. Creating Charts
- 4.10. Inserting Header and Footer
- 4.11. Spell Checking
- 4.12. Importing data from and Exporting into other formats
- 4.13. Familiarity with Devanagari fonts

### **5. Presentation System**

- 5.1. Introduction to presentation application

- 5.2. Creating, Opening & Saving Slides
- 5.3. Formatting Slides
- 5.4. Slide Show
- 5.5. Animation
- 5.6. Inserting Built-in picture, Picture, Table, Chart, Graphs, and Organization Chart etc.

## **6. Database System**

- 6.1. Introduction to Data and Database Management System (DBMS)
- 6.2. Basic Concept of Tables, Fields, Records, Relationships and Indexing
- 6.3. Introduction to database application
  - 6.3.1. Data Types
  - 6.3.2. Creating, Modifying & Deleting Tables
  - 6.3.3. Establishing relationships among tables
  - 6.3.4. Formatting and validating field data
  - 6.3.5. Inserting, Modifying, and Deleting data
  - 6.3.6. Creating, Modifying, Deleting and Using simple Queries/Forms/ Reports

## **7. Web Designing**

- 7.1. Introduction to Webpage and Content Management System (CMS)
- 7.2. Designing Simple Webpage with HTML
  - 7.2.1. HTML Document
  - 7.2.2. HTML Tags
  - 7.2.3. Working with Text, Hyperlinks, Images, Lists, Forms, Tables, Frames, etc.
- 7.3. Familiarity with Cascading Style Sheet, Rich Site Summary

## **8. Computer Network**

- 8.1. Basic Networking: definition, types, and topologies
- 8.2. Connectivity and Media: Network Cables and Connectors
- 8.3. Introduction to Network Devices (Hub, Switch, Router, Gateway etc.)
- 8.4. Network Cabling and Cable testing
- 8.5. Familiarity with IP Addressing, subnet mask, gateway, Domain Name System (DNS), static and dynamic address assignment
- 8.6. Application of Network utilities (e.g. IPCONFIG, PING, TRACERT, NSLOOKUP)
- 8.7. Concept of E-mail / Internet / Extranet / Intranet, World Wide Web (WWW)
- 8.8. Familiarity with Internet Browsers (Internet Explorer, Firefox, Opera, Safari, Google Chrome, etc.)

## **9. Cyber Security**

- 9.1. Introduction to Cyber Security
- 9.2. Common security threats: Social engineering; Distributed Denial of Services; Malwares: Phishing, Spyware, Viruses, Worms, Trojans, etc.
- 9.3. Security Mechanisms
  - 9.3.1. Identity and Access Control

9.3.2. Use of Firewalls, Intrusion Detection System (IDS) and Intrusion Prevention System (IPS)

9.3.3. Email filtering

9.3.4. Use of antivirus software

१० .सम्बद्ध नीति कानून र संस्थाहरु (Relevant legislations and Institutions)

१०.१ सूचना संचार प्रविधि नीति, २०७२

१०.२ विद्युतीय कारोबार ऐन, २०६३

१०.३ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेडको प्रबन्धपत्र तथा नियमावली

१०.४ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेडको कर्मचारी (सेवा, शर्त तथा सुविधा) विनियमावली, २०७२

१०.५ सम्बद्ध संस्थाहरुको भूमिका

१०.५.१ उद्योग, वाणिज्य तथा आपूर्ति मन्त्रालय

१०.५.२ संचार तथा सूचना प्रविधि मन्त्रालय

१०.५.३ सूचना प्रविधि विभाग

१०.५.४ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेड

१०.५.५ राष्ट्रिय सूचना प्रविधि केन्द्र र सरकारी एकीकृत डाटा केन्द्र (Government Integrated Data Center )

**Marking Scheme ( Objective)**

Course Unit	Topics	Number of Questions	Marks
1	Computer Fundamentals	8	16
2	Operating System	4	8
3	Word Processing	8	16
4	Electronic Spreadsheet	8	16
5	Presentation System	3	6
6	Database Management System	5	10
7	Web Designing	4	8
8	Computer Network	4	8
9	Cyber Security	3	6
10	Relevant Legislations and Institutions	3	6
	Total	50	100

The End

# नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेड

प्रधान कार्यालय ,काठमाडौं

प्राविधिक सेवा, तह-५, वरिष्ठ सहायक, कम्प्युटर अपरेटर पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

## **Paper II : Job- related Knowledge**

Full marks=100

### **Group A (5 x 10 = 50 Marks)**

#### **1. Computer Fundamentals (1x10 =10 marks)**

- 1.1. Definition, History, Generation, Characteristics, Types & Applications of Computers.
- 1.2. Overview of a computer system
  - 1.2.1. Data and data processing
  - 1.2.2. Hardware: Definition; Input Unit, CPU, Output Unit; Storage devices: Primary and Auxiliary Memory
  - 1.2.3. Software: Definition; Types of Software; Programming Language and its types
  - 1.2.4. Firmware and Cache Memory
- 1.3. Concept of Multimedia
- 1.4. File Management
  - 1.4.1. Physical structure of the disk
  - 1.4.2. Concept of file and folder
  - 1.4.3. Type of files and file extensions
- 1.5. Introduction to ASCII and Unicode standards

#### **2. Operating System (1x10 =10 marks)**

- 2.1. Introduction to Operating System
- 2.2. Types of Operating System`
- 2.3. Functions of Operating Systems
- 2.4. Command line operation (e.g. copy command, move command, command to view and set different file attributes, etc.)
- 2.5. Windows Operating System
  - 2.5.1. Introduction to Graphical User Interface (GUI)
  - 2.5.2. Basic Windows Elements - Desktop, Taskbar, My Computer, Recycle Bin, etc.
  - 2.5.3. Starting and shutting down Windows
  - 2.5.4. File Management with Windows Explorer
  - 2.5.5. Windows applications: (Control Panel, Character Map, Paint)
  - 2.5.6. Finding files & folders and saving the result
  - 2.5.7. Starting a program by command line operation

- 2.5.8. Changing Window Settings: Adding/Removing programs; Clearing the contents of document menu; Customizing the Taskbar; Control Panel items
- 2.5.9. Creating shortcut (icons) on desktop
- 2.5.10. System tools: disk scanning, disk defragmenter, backup, restore, format

**3. Word Processin (1x10 =10 marks)**

- 3.1. Concept of Word Processing
- 3.2. Creating, Saving, Opening, Previewing and Printing documents; Changing default settings
- 3.3. Elements of Word Processing environment (Menu, Toolbars, Status bar, Rulers, Scrollbars)
- 3.4. Copying, Moving, Deleting and Formatting text (Font, Size, Color, Alignment, Line & Paragraph Spacing); Finding and Replacing text; Setting Page Layout
- 3.5. Creating Lists with Bullets and Numbering
- 3.6. Creating and Manipulating Tables; Borders and Shading
- 3.7. Use of Indentation and Tab Setting; Creating Newspaper Style Documents using Column
- 3.8. Inserting Header, Footer, Footnotes, Endnotes, Page Numbers, File, Page break, Section break, Graphics, Pictures, Charts, Word Art, Symbols & Organization Chart
- 3.9. Mail Merge
- 3.10. Auto Correct, Spelling and Grammar Checking, and Thesaurus
- 3.11. Security Technique of Documents
- 3.12. Familiarity with Devanagari fonts

**4. Electronic Spreadsheet (1x10 =10 marks)**

- 4.1. Concept of Electronic Spreadsheet
- 4.2. Organization of Electronic Spreadsheet application (Cells, Rows, Columns, Worksheet, Workbook and Workspace)
- 4.14 Creating, Opening, Saving, Page Setting, Previewing and Printing Work Book; Changing default options
- 4.15 Elements of Electronic Spreadsheet Environment (Menu, Toolbars, Status bar, Rulers, Scrollbars)
- 4.16 Editing, Copying, Moving, Deleting Cell Contents; Formatting Cells (Font, Border, Pattern, Alignment, Number and Protection); Formatting Rows, Column and Sheets
- 4.17 Using Formula - Relative Cell and Absolute Cell Reference
- 4.18 Using basic Functions
- 4.19 Generating Series; Sorting and Filtering Data; Summarizing Data with Sub Totals
- 4.20 Creating Charts
- 4.21 Inserting Header and Footer
- 4.22 Spell Checking

- 4.23 Importing data from and Exporting into other formats
- 4.24 Familiarity with Devanagari fonts

**5. Presentation System (1x10 =10 marks)**

- 5.1. Introduction to presentation application
- 5.2. Creating, Opening & Saving Slides
- 5.3. Formatting Slides
- 5.4. Slide Show
- 5.5. Animation
- 5.6. Inserting Built-in picture, Picture, Table, Chart, Graphs, and Organization Chart etc.

**Group B (5 x 10 = 50 Marks)**

**6. Database System**

- 6.1. Introduction to Data and Database Management System (DBMS)
- 6.2. Basic Concept of Tables, Fields, Records, Relationships and Indexing
- 6.3. Introduction to database application
  - 6.3.1. Data Types
  - 6.3.2. Creating, Modifying & Deleting Tables
  - 6.3.3. Establishing relationships among tables
  - 6.3.4. Formatting and validating field data
  - 6.3.5. Inserting, Modifying, and Deleting data
  - 6.3.6. Creating, Modifying, Deleting and Using simple Queries/Forms/ Reports

**7. Web Designing**

- 7.1. Introduction to Webpage and Content Management System (CMS)
- 7.2. Designing Simple Webpage with HTML
  - 7.2.1. HTML Document
  - 7.2.2. HTML Tags
  - 7.2.3. Working with Text, Hyperlinks, Images, Lists, Forms, Tables, Frames, etc.
- 7.3. Familiarity with Cascading Style Sheet, Rich Site Summary

**8. Computer Network**

- 8.1. Basic Networking: definition, types, and topologies
- 8.2. Connectivity and Media: Network Cables and Connectors
- 8.3. Introduction to Network Devices (Hub, Switch, Router, Gateway etc.)
- 8.4. Network Cabling and Cable testing
- 8.5. Familiarity with IP Addressing, subnet mask, gateway, Domain Name System (DNS), static and dynamic address assignment
- 8.6. Application of Network utilities (e.g. IPCONFIG, PING, TRACERT, NSLOOKUP)



- 8.7. Concept of E-mail / Internet / Extranet / Intranet, World Wide Web (WWW)
- 8.8. Familiarity with Internet Browsers (Internet Explorer, Firefox, Opera, Safari, Google Chrome, etc.)

## 9. Cyber Security

- 9.1. Introduction to Cyber Security
- 9.2. Common security threats: Social engineering; Distributed Denial of Services; Malwares: Phishing, Spyware, Viruses, Worms, Trojans, etc.
- 9.3. Security Mechanisms
  - 9.3.1. Identity and Access Control
  - 9.3.2. Use of Firewalls, Intrusion Detection System (IDS) and Intrusion Prevention System (IPS)
  - 9.3.3. Email filtering
  - 9.3.4. Use of antivirus software

## १०. सम्बद्ध नीति, कानून र संस्थाहरू

- १०.१ सूचना संचार प्रविधि नीति, २०७२
- १०.२ विधुतीय कारोबार ऐन, २०६३
- १०.३ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेडको प्रबन्धपत्र तथा नियमावली
- १०.४ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेडको कर्मचारी (सेवा, शर्त तथा सुविधा) विनियमावली, २०७२
- १०.५ सम्बद्ध संस्थाहरूको भूमिका
  - १०.५.१ उद्योग, वाणिज्य तथा आपूर्ति मन्त्रालय
  - १०.५.२ संचार तथा सूचना प्रविधि मन्त्रालय
  - १०.५.३ सूचना प्रविधि विभाग
  - १०.५.४ नेपाल पारवहन तथा गोदाम व्यवस्था कम्पनी लिमिटेड
  - १०.५.५ राष्ट्रिय सूचना प्रविधि केन्द्र र सरकारी एकीकृत डाटा केन्द्र (Government Integrated Data Center)

The End

द्वितीय चरण :- कम्प्युटर प्रयोगात्मक परीक्षा तथा अन्तर्वार्ता (पूर्णाङ्क :- ६०)

क) कम्प्युटर प्रयोगात्मक परीक्षा (पूर्णाङ्क :- ५०)

**Practical Examination Scheme**

S.No.	Topics	No. of Questions	Marks	Time (Minutes)
1	Devnagari Typing	1	5	5
2	English Typing	1	5	5
3	Word Processing	1	12	35
4	Electronic Spreadsheet	1	12	
5	Presentation System	1	5	
6	Database Management System	1	6	
7	Web Designing	1	5	
	Total	7	50	45

ख) व्यक्तिगत अन्तर्वार्ता (पूर्णाङ्क -३०)

समाप्त