

त्रिभुवन विश्वविद्यालय
सेवा आयोग
प्राविधिक सहायक (सूचना प्रविधि) पदको
लिखित परीक्षाको माध्यक्रम
२०८१

- ❖ लिखित परीक्षाको विषय, पूर्णाङ्क, परीक्षा प्रणाली, प्रश्न संख्या, अंकभार, समय र उत्तीर्णाङ्क निम्नानुसार हुनेछ ।

पत्र	विषय	पूर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या	प्रति प्रश्न अंकभार	समय	उत्तीर्णाङ्क
प्रथम	सेवा सम्बन्धि	५०	वस्तुगत	५०	१	45 min.	
		५०	विषयगत	छोटो उत्तर ४ लामो उत्तर ३	५ १०	1 hr. 30 min.	

प्रथम पत्र प्रथम खण्ड:- वस्तुगत प्रश्न (Objective Questions)

- ❖ बहुवैकल्पिक प्रश्नको विकल्प छनौट गर्दा गलत विकल्प छानेमा ऋणात्मक मूल्याङ्कन (Negative Marking) गरिने छ । अर्थात् यसरी मूल्याङ्कन गर्दा प्रत्येक गलत उत्तरको लागि ०.२० अङ्क प्राप्ताङ्कबाट घटाइनेछ । (उदाहरणका लागि परीक्षार्थीले २० अङ्कको बहुवैकल्पिक प्रश्नमा १५ प्रश्नको सही उत्तर र ५ प्रश्नको गलत उत्तर दिएमा निजको प्राप्ताङ्क $(0.20 \times 5 = 1.00)$ अर्थात् $15 - 1 = 14$ अङ्क हुनेछ ।
- ❖ बहुवैकल्पिक परीक्षाका प्रश्नहरू प्रति प्रश्न अंक १ हुनेगरी निम्नानुसार हुनेछन् ।

Units	1	2	3	4	5	6	7	8	9
No. of Questions	10	10	6	3	5	5	3	3	5

प्रथम पत्र द्वितीय खण्ड:- विषयगत प्रश्न (Subjective Questions)

Units	1	2	3	4	5	6	7	8	9
No. of Questions	1	1	1		1	1	1		1
Marks of each question	10	10	5		5	5	5		10

Total Marks	10	10	5	5	5	5	10
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Course Contents

1. Fundamentals of Computer and Information Technology

- 1.1. Information technology and its importance
- 1.2. Computer, its classification, uses and advantage
- 1.3. Computer System & its components: Input units, Processing units, Output units, Memory and storage units
- 1.4. Computer peripherals and its functions
- 1.5. Hardware and software
- 1.6. Operating system and its Functions, Types of operating systems (GUI, CLI)
- 1.7. Booting and its types
- 1.8. Customizing desktop: Taskbar, Icon, Wallpaper, Screensaver, Screen resolution, Theme, Print Screen, Capture a portion of a screen, Adjust Date and Time, Resize & Switch windows, Recycle bin, Show/hide desktop Icon, Program Shortcut
- 1.10. Window Applications: Paintbrush, Calculator, Notepad, WordPad, Multimedia, media files, Task manager
- 1.11. Concept of drive, files, folders and extensions
- 1.12. Storage devices (pen drive, memory card, CD/DVD/blu-rays)
- 1.13. Resolution, DPI & Scanner
- 1.14. Control Panel and its use
- 1.15. Add remove programs, device manager
- 1.16. Maintain & optimize computer: System tools
- 1.17. User account and its types
- 1.18. Computer Virus and its types, effects and protection from virus
- 1.19. Importance of windows update and firewall
- 1.20. Backup and its importance

2. Word Processor

- 2.1. Introduction to word processor, MS-Word and its components
- 2.2. Default extension and location
- 2.3. Creating, saving and opening documents
- 2.4. Elements of word processor: Menu, Toolbars, Status-bar, Rulers, Scrollbars
- 2.5. Concept of text, paragraph, graphics, charts, objects in documents
- 2.6. Formatting text and paragraphs, Page Formatting
- 2.7. Bookmark, Page breaks, Section break, Footnote
- 2.8. Table of Contents, Cross reference
- 2.9. Mail merge and its uses
- 2.10. Inserting Pictures, Charts, Word Art, Symbols
- 2.11. Tables in word processor, Concept of cell, row, column, table and its properties

- 2.12. Changing default settings
- 2.13. AutoCorrect, Spelling and Grammar Checking
- 2.14. Use of different view and windows
- 2.15. Using Devanagari fonts and Nepali Unicode in documents

3. Spreadsheet

- 3.1. Introduction to spreadsheet, MS-Excel and its components
- 3.2. Default extension and location
- 3.3. Organization of Spreadsheet: Cells, Rows, Columns, Worksheets, Workbooks and Workspace
- 3.4. Applications of spreadsheet
- 3.5. Spreadsheet environment: Menu, Toolbars, Status-bar, Rulers, Scrollbars
- 3.6. Editing, Copying, Moving, Deleting Cell contents
- 3.7. Cell referencing
- 3.8. Using formulas and basic functions
- 3.9. Using Devanagari fonts and Nepali Unicode in worksheets

4. Presentation

- 4.1. Introduction to presentation, MS-PowerPoint and its components
- 4.2. Creating presentation slides, Design and formatting presentation, Slide transitions and Animations
- 4.3. Inserting, Removing and Duplicating slides

5. Computer Programming

- 5.1. Programming logics, Flowchart, Algorithm and Pseudocode
- 5.2. C programming language
- 5.3. Variables and data types, Constants, Keywords, Operators
- 5.4. Control statements & Looping
- 5.5. Arrays, String and Pointer
- 5.6. Structure

6. Computer Networks

- 6.1. Importance of networks, Advantages and disadvantages
- 6.2. Types of networks, Network topology
- 6.3. Network architecture, Reference models (OSI, TCP/IP)
- 6.4. Transmission medium (Cable, Wireless)
- 6.5. Network cable types and properties
- 6.6. Jack, Connector, Clamper
- 6.7. IP addresses, Class A, B, C, D & E
- 6.8. Subnet mask
- 6.9. Private and Public address
- 6.10. Network Devices: NIC, Modem, Hub, Repeater, Bridge, Router

7. Database Management System

- 7.1. Database systems
- 7.2. Data models

- 7.3. Relational Database Model (RDBMS)
- 7.4. Entity Relationship (ER) Modeling
- 7.5. Normalization

8. Recent IT Trends and Terminologies

- 8.1. Artificial Intelligence
- 8.2. E-Governance
- 8.3. E-commerce
- 8.4. Online meeting / class

9. Tribhuvan University

- 9.1. TU Executive Council, Formation, Roles and Responsibilities
- 9.2. TU Service Commission, Formation, Roles and Responsibilities
- 9.3. TU Rules & Regulations, Teacher/Staff Services: Roles and Responsibilities of a TU staff, Leave & other facilities for a TU staff

द्वितीय पत्र : प्रयोगात्मक प्रश्न (Practical Questions)

❖ पूर्णाङ्क ३० को प्रयोगात्मक परीक्षामा प्रश्नहरू तथा अंकहरू निम्नानुसार हुनेछन् ॥

S.N.	Topic	No. of question	Marks
1	PC configuration, Installation of OS, Application programs setup and removal, Setup a local printer/network printer	1	6
2	Basic troubleshooting of a network and Internet connection, E-mail, Hosting an online meeting or class	1	6
3	English and Nepali Typing	2	3+3
4	Word Processor	1	6
5	Spreadsheet	1	4
6	Presentation	1	2
Total		7	30
