कम्प्युटर अपरेटर (पाँचौं तह) — द्वितीय पत्र

Computer Operator (Assistant 5th Level) — Second Paper

विषय: Service-related Working Knowledge (सेवा सम्बन्धी कार्यज्ञान)

पूर्णाङ्क	उत्तीर्णाङ्क	समय	प्रश्न संख्या
100	40	2 घण्टा 15 मिनेट	16
12 short questions × 5 marks and 4 long questions × 10 marks; Sections A and B in separate answer books			

यो प्रश्नपत्र लोक सेवा आयोगको 2083 सालको परीक्षा ढाँचा (पूर्णाङ्क, समय, प्रश्न संख्या र खण्ड विभाजन) मा आधारित रहेर **Loksewa Pathsala** ले तयार पारेको मौलिक अभ्यास (मोडल) प्रश्नपत्र हो। यो आयोगको आधिकारिक प्रश्नपत्र होइन। This is an original practice paper prepared by Loksewa Pathsala on the 2083 exam pattern; it is not an official Lok Sewa Aayog question paper.

Instructions:

1. Answer all questions. Marks are shown against each question.
2. Answers may be written in Nepali, English or both.
3. Write Section A and Section B in separate answer books where instructed.

Section A (50 marks) — 50 marks

1. Explain the main functions of an operating system. **5**

2. Differentiate between RAM and ROM with examples. **5**

3. Convert $(156)_{10}$ into binary and hexadecimal. **5**

4. What is mail merge? Write the steps to perform it in a word processor. **5**

5. Explain absolute and relative cell references in a spreadsheet with examples. **5**

6. Write any five features of a good presentation slide design. **5**

7. What is a database management system? Explain its advantages over a file-based system. **10**

8. Describe the stages of computer evolution (generations) with the main technology used in each. **10**

Section B (50 marks) — 50 marks

9. Differentiate between LAN, MAN and WAN. **5**

10. What is an IP address? Differentiate between IPv4 and IPv6. **5**

11. List common cyber security threats and simple ways to prevent them. **5**

12. What is HTML? Write a simple HTML page structure. **5**

13. Explain preventive maintenance of computer hardware. **5**

14. Write the main provisions of the Electronic Transactions Act, 2063 relevant to government offices. **5**

15. Explain the OSI reference model with the function of each layer. **10**

16. What is e-governance? Discuss its benefits and challenges in Nepal. **10**

— Best of luck —

Loksewa Pathsala

Answer pointers (for self-check)

These pointers show what a good answer should cover; write your own full answer.

1. Process, memory, file and device management; user interface; security.

2. Volatile read-write vs non-volatile read-only; main memory vs firmware/BIOS.

3. 10011100_2 and $9C_{16}$ (show division by 2 and by 16).

4. Main document + data source; insert merge fields; preview; finish and merge.

5. =A1 changes when copied; =A1 stays fixed; mixed reference $A1/A$1.

6. Readable fonts, few words per slide, consistent theme, contrast, relevant visuals.

7. Organised data, reduced redundancy, integrity, security, concurrent access, backup; examples of DBMS.

8. Vacuum tube, transistor, IC, microprocessor, AI/ULSI; characteristics and examples.

9. Coverage area, speed, ownership, examples.

10. Unique network address; 32-bit dotted decimal vs 128-bit hexadecimal.

11. Phishing, malware, ransomware, weak passwords; updates, antivirus, MFA, backups, awareness.

12. Markup language; html, head, title, body tags.

13. Dust cleaning, cable checks, UPS use, updates, disk health monitoring.

14. Legal recognition of electronic records and digital signatures; certifying authority; computer crimes.

15. Physical, data link, network, transport, session, presentation, application.

16. Online services, transparency, efficiency; digital divide, infrastructure, security, capacity.

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