

लोक सेवा आयोग  
सिडिएस एण्ड क्लियरिङ्ग लिमिटेड, प्राविधिक, पाँचौं, वरिष्ठ कम्प्युटर अपरेटर पदको खुला  
प्रतियोगितात्मक लिखित परीक्षा  
२०८२।१२।२४

पत्र : द्वितीय

समय : २ घण्टा ३० मिनेट

पूर्णाङ्क : १००

विषय : Information Technology and Related Legislations

प्रत्येक Section को उत्तर छुट्टाछुट्टै उत्तरपुस्तिकामा लेख्नुपर्नेछ । अन्यथा उत्तरपुस्तिका रद्द हुनेछ ।

**Section : "A"**

**40 Marks**

1. What is memory? Why do we need secondary memory and USB devices? Explain. 2+3=5
2. Differentiate between Algorithm and Pseudo-code with examples. 5
3. What is a computer system? Draw a block diagram of a computer system and explain various components of a computer system with their functions. 2+3+5=10
4. Describe the basic concepts of programming using C. Explain with a suitable example variable and data types, control structures and functions in C programming. 2+8=10
5. Describe the difference between preemptive and non-preemptive scheduling algorithm. Explain about scheduling in real time. 6+4=10

**Section : "B"**

**40 Marks**

6. Explain the need of database. Differentiate between data warehousing and data mining. 1+4=5
7. What is the difference between validation and verification? Elucidate e-commerce and e-business with suitable examples. 2+3=5
8. What is normalization? Describe its importance in database design. Explain 1NF, 2NF and 3NF with the help of suitable examples. 2+2+6=10
9. Define software testing. Discuss different types of testing in SDLC. Explain the use of DFD and E-R Diagram in system design. 2+4+4=10
10. Explain the functions of TCP/IP protocol suite. Elaborate the role of DHCP (Dynamic Host Configuration Protocol) in computer network. Describe the functions and importance of firewalls and routers in computer network. 3+2+5=10

**Section : "C"**

**20 Marks**

11. What are the functions, roles and responsibilities of CDSC? Mention. 5
12. Explain the clearing and settlement mechanism in Nepal. 5
13. What is the vision of ICT Policy, 2072? Discuss objectives of the ICT Policy, 2072 and describe how it aims to foster digital infrastructure, e-governance and the promotion of financial services in Nepal. 2+4+4=10

- The End -