

लोक सेवा आयोग  
राष्ट्रिय वाणिज्य बैंक लिमिटेड प्रशासन, सूचना प्रविधि, पाँचौ, वरिष्ठ सहायक (सूचना प्रविधि) पदको  
प्रतियोगितात्मक लिखित परीक्षा  
२०७६।३।१६

पत्र : द्वितीय

समय : ३ घण्टा

पूर्णाङ्क : १००

विषय : Computer/IT Knowledge

प्रत्येक खण्डको उत्तर छुट्टाछुट्टै लेख्नुपर्नेछ। अन्यथा उतरपुस्तिका रद्द हुनेछ।

Section : A

60 Marks

1. What is data structure? Define Array, Queue and Stack data structure with examples in detail.  
2.5 + 2.5 + 2.5 + 2.5 = 10
2. Discuss the operation of full adder with circuit diagram and truth table. Why does Direct Memory Access (DMA) have priority over the CPU when both request a memory transfer? 5 + 5 = 10
3. Distinguish between Circuit switching and Packet switching with appropriate examples in detail. 10
4. Name the four basic network topologies and explain them giving all the relevant features. Also, define switch, Hub and Router. Why Router is best than other network devices? state. 5 + 3 + 2 = 10
5. What is scheduling? What criteria affects the schedule performance? What are the different principles which must be considered while selection of a scheduling algorithm? 2 + 4 + 4 = 10
6. What are the difference between 32-bit and 64 architectures? Also explain differences between FAT and NTFS file systems. 5 + 5 = 10

Section : B

40 Marks

7. Write the objectives of normalization in database. What is functional dependency? Describe the types and properties of FDs. 10
8. Compare OLTP and OLAP systems. Explain the steps with a suitable block diagram. 5 + 5 = 10
9. Explain the history of IT Policies in Nepal. Mention important features of ICT Policy 2072. How do you analyse the effectiveness of current ICT Policy in our country? 3 + 4 + 3 = 10
10. Why is it essential to have separate it policies for organization, considering National IT Policy 6? Critically analyse the current NRB It Guidelines. 3 + 7 = 10

