

लोक सेवा आयोग  
नेपाल राष्ट्र बैंक, प्राविधिक, सूचना प्रविधि, सहायक द्वितीय, सहायक (सूचना प्रविधि) पदको खुला  
प्रतियोगितात्मक लिखित परीक्षा  
२०८१।०९।१४

पत्र : प्रथम  
समय : २ घण्टा ३० मिनेट

पूर्णाङ्क : १००

विषय : Information Technology - I

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

Subjective

Time : 2 hours

75 Marks

Section "A"

30 Marks

1. What is distributed denial of service (DDOS) attack? Explain in brief with an arbitrary example. 5 ✓
2. Explain the major components of motherboard of a computer with their purposes. 5 ✓
3. Mention the working principle of Zener diode, its characteristic behaviors and uses. 5 ✓
4. Explain the working principle of MOSFET used as an amplifier. 5 ✓
5. Describe how storage devices facilitate data storage, retrieval and organization for various applications and operating systems. Also, describe major categories of storage devices along with their characteristics including speed, capacity and use cases. 4+6=10 ✓

Section "B"

45 Marks

6. Explain various memories of computer along with their characteristic features and uses. 5 ✓
7. Discuss the types of security threats to operating system and ways to manage those threats. 5 ✓
8. Briefly describe TCP and UDP with their purpose. What is IPCONFIG tool used for? Write. 4+1=5 ✓
9. What is Disaster Recovery? Mention the basic steps of disaster recovery planning. 2+3=5 ✓
10. Differentiate between lossless and lossy compression based on their working procedures, benefits, drawbacks and applications. 5 ✓
11. Explain the concept of process management in operating systems, including the different states of a process, the role of the process control block (PCB) and the various scheduling algorithms used for process management. 10 ✓
12. Differentiate among network hardware (NIC, Repeater, Hub, Bridge, Switch and Router) along with their functions and features. 10 ✓

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