

लोक सेवा आयोग
कर्मचारी सञ्चय कोष, प्राविधिक, कम्प्युटर, छैटौ, सहायक प्रबन्धक (कम्प्युटर इन्जिनियर) पदको खुला
प्रतियोगितात्मक लिखित परीक्षा
२०८०।०९।०९

पत्र : द्वितीय
समय : ३ घण्टा

पूर्णाङ्क : १००

विषय : सेवा सम्बन्धी

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

Section "A"

50 Marks

1. What is memory mapped I/O and Isolated I/O? Explain how DMA Controller controls and coordinates Direct Memory Access operation. 4+6=10
3 3
2. Define Number System. Discuss various types of Number System and their conversion with suitable example. 2+4+4=10
6
3. Define Process and Threads. Explain the uses of process and threads in operating system with proper diagram. 2+8=10
6
4. What is packet switching? Discuss its advantages and disadvantages. 2+8=10
6
5. Explain the difference between object composition and inheritance with proper class/object diagram. Explain how the function overriding can be an issue in the case of multiple inheritances with example. 6+4=10
0 0

Section "B"

50 Marks

6. What is behavioral specification? Why is modular decomposition used in architecture design? Explain with example. 4+6=10
7. What is concurrency in Database Management System? Describe various concurrency control techniques used for managing database. 2+8=10
4
8. Define tree. Discuss the use of binary tree, balancing tree, AVL tree and Splay tree with diagram under data structure and algorithm. 2+8=10
4
9. Discuss the difference between Machine Learning semi-supervised and deep learning with example. 10
4
10. Define Cyber Security. Explain the difference between passive and active attack in the context of cyber security. Also, explain with an example, how phishing attack is used to compromise your credentials. 2+4+4=10
4

40 - The End -