

त्रिभुवन विश्वविद्यालय  
सेवा आयोग  
प्राविधिक, प्राविधिक, सहायक प्रथम, मुख्य प्राविधिक सहायक (सूचना प्रविधि) पदको खुला प्रतियोगितात्मक  
लिखित परीक्षा  
२०८२।०५।१३

पत्र : प्रथम  
समय : २ घण्टा १५ मिनेट

पूर्णाङ्क : १००

विषय : सेवा सम्बन्धी

**Subjective**

**Time : 1hr 30min**

**50 Marks**

1. Write a program in C or C++ to display the greatest value stored in an array using a function. 5
2. What is event handling in JavaScript? Write a simple JavaScript code to show a welcome message when the page loads. 1+4=5
3. Explain the Three Tier Database Architecture with diagram. Describe the Harvard architecture. 2+3=5
4. Differentiate between IPv4 and IPv6. What are the methods used to make IPv4 and IPv6 interoperable? Explain. 2+3=5
5. Differentiate between RAM and ROM. Classify and discuss different generation of computer depending on device technology. Explain how to create a financial statement in Microsoft Excel using formulas, functions (e.g., SUM, IF, VLOOKUP) and charts. Illustrate how data validation and conditional formatting enhance data analysis. 1+3+4+2=10
6. The Internet of Things (IoT) has transformed various sectors by enabling interconnected devices to collect, process and share data. Describe the key components and applications of IoT in modern contexts, such as smart cities, healthcare and agriculture. List out the potential benefits of IoT in improving efficiency and decision-making. Also, point out the major challenges including security, privacy and scalability that organizations face in implementing IoT solutions. 4+3+3=10
7. Write the provision relating to Controller and Certifying Authority as mentioned in Electronic Transactions Act, 2063. Describe the role of Office of Controller of Certification. 6+4=10

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