

लोक सेवा आयोग
नेपाल राष्ट्र बैंक, प्राविधिक, अधिकृत तृतीय, सहायक निर्देशक (सूचना प्रविधि) पदको खुला
प्रतियोगितात्मक लिखित परीक्षा

२०८१/०२/०१

KEY [D]

पत्र : तृतीय

समय : ३ घण्टा

पूर्णाङ्क : १००

विषय : **Current Developments in IT Sector and Emerging Technologies**

उत्तरपुस्तिकामा प्रश्नपत्रको KEY अनिवार्य रूपले उल्लेख गर्नुपर्नेछ । उल्लेख नगरेमा उत्तरपुस्तिका रद्द हुनेछ । परीक्षामा calculator, mobile प्रयोग गर्न पाइनेछैन ।

Objective

Time : 30 mins

25x1=25 Marks

Multiple Choice

- In the context of internet programming, what does CGI stand for?
A) Crappy Graphics Interface B) Common Gateway Interface
C) Computer Generated Image D) Calculated Graphical Integration
- A computer hacker is, in fact, a security expert. Among these hackers, ethical hacker is also known as
A) White hat hacker B) Blue hat hacker C) Grey hat hacker D) Black hat hacker
- An attempt to harm, damage or cause threat to a system or network is broadly termed as
A) Cyber-crime B) Cyber attack C) System hijacking D) Digital crime
- Which of the following is an essential professional and ethical practice in the field of cyber security?
A) Regularly updating security patches and software
B) Sharing sensitive customer data without consent
C) Using unauthorized hacking tools for testing purposes
D) Ignoring security incidents and breaches
- Among the various strategies of risk handling, managing through insurance is one of the techniques.
A) Risk avoidance B) Risk reduction C) Risk acceptance D) Risk transfer
- What term describes the process of analyzing and extracting insights from large and complex datasets?
A) Data Mining B) Data Warehousing
C) Big Data Analytics D) Data Aggregation
- SWIFT CODE of Nepal Rastra Bank is
A) NRBL NPKA B) NRB NP C) NRBL D) NRB NPKA
- Which encryption protocol ensures secure communication between a user's web browser and an E-Commerce website?
A) Hypertext Transfer Protocol B) Secure Sockets Layer
C) File Transfer Protocol D) Simple Mail Transfer Protocol
- What does 'M-Commerce' stand for in the context of e-commerce?
A) Multi-Commerce B) Mega-Commerce
C) Mobile Commerce D) Marketing Commerce

Contd...

D - 2, प्राविधिक, अधिकृत तृतीय, सहायक निर्देशक (सूचना प्रविधि)

10. Typically, how many stages are there in E-Government life cycle?
A) 3 B) 4 C) 5 D) 6
11. Which e-governance model emphasizes citizen participation in decision making processes through online platforms and collaborating tools?
A) Government-to-Government B) Government-to-Citizen
C) Citizen-to-Government D) Government-to-Business
12. What is the e-governance master plan of Nepal?
A) A framework for implementing e-governance in Nepal ✓
B) A case study on the success of e-governance in Nepal
C) A policy document outlining the benefits of e-governance in Nepal ✓
D) A framework for securing government IT systems in Nepal
13. What is the primary goal of Natural Language Processing (NLP) in the field of AI?
A) Recognizing patterns in data
B) Generating human-like speech
C) Understanding and processing human language ✓
D) Planning and decision-making
14. algorithm is best suited for a binary classification problem.
A) Decision Trees B) Random Forest C) KNN D) Linear Regression
15. Which of the following is not a type of cloud server?
A) Public Cloud Servers ✓ B) Private Cloud Servers
C) Dedicated Cloud Servers D) Merged Cloud Servers
16. In cloud computing, transaction overflow processing with reservation system is also known as
A) Cloud provisioning B) Cloud servicing C) Cloud bursting D) Cloud coalescing
17. Which cloud computing deployment model is characterized by sharing computing resources among multiple organizations or tenants to achieve economies of scale?
A) Public Cloud B) Private Cloud C) Hybrid Cloud D) Community Cloud ✓
18. In virtual currency taxonomy, what is DAO?
A) Decentralized Asynchronous Operation B) Digitally Automated Operation
C) Decentralized Anonymous Organization D) Decentralized Autonomous Organization ✓
19. What is a primary concern associated with the anonymity of transactions in certain virtual currencies?
A) Increased transparency
B) Enhanced security
C) Potential for illegal activities such as money laundering ✓
D) Improved regulatory compliance
20. Nepal Rastra Bank is established in AD.
A) 1955 B) 1956 C) 1958 D) 1960 ✓

D - 3, प्राविधिक, अधिकृत तृतीय, सहायक निर्देशक (सूचना प्रविधि)

21. Which of the following technologies are commonly implemented by Nepali banks for enhancing customer service and reducing wait time in branches?
- A) Artificial Intelligence Chat bots ✓
B) Blockchain for transaction validations
C) Virtual Reality for immersive banking experiences
D) Cloud computing for data storages
22. Whose signature is printed on the paper note in Nepal?
- A) Finance Minister
B) Governor ✓
C) Deputy Governor
D) Prime Minister
23. When is the first Broadband Policy issued by Nepal Government?
- A) 2069 BS
B) 2070 BS
C) 2071 BS ✓
D) 2072 BS
24. Bank should check transaction and data integrity site periodically.
- A) at Data Center (DC)
B) at Disaster Recovery (DR)
C) between DC and DR ✓
D) between Head Office and DR site
25. Which widely used JAVA networking terminology refers to a unique identifier assigned to each network interface card (NIC)?
- A) IP Address
B) Protocol
C) Port Number
D) MAC Address ✓

- The End -

उत्तरपुस्तिकामा KEY अनिवार्य रूपमा लेख्नुहोला ।

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प्रतियोगितात्मक लिखित परीक्षा
२०८१।०२।०१

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

Subjective

Time : 2 hrs 30 mins

75 Marks

Section : "A"

35 Marks

1. "Technology is a great enabler, but it also presents pervasive, potentially high-impact risk". Discuss. 5
2. List out the major features of IT Guidelines of NRB. 2
3. What is Common Gateway Interface (CGI) application? Discuss the use of sockets in internet programming. 2+3=5
4. How does cyber crime affect society? Relate with the financial cyber crime and mention the ways to prevent cyber attack. 2+3=5
5. Explain the key technologies of FinTech in brief. 5
6. Analyze the interaction between HTML forms and CGI scripts, outlining the process of sending data from the client to the server using HTML tags. Include practical examples to illustrate the concept. 5+5=10

Section : "B"

40 Marks

7. What are the major opportunities and challenges of E-governance in Nepal? Explain. 5
8. Differentiate between Supervised, Unsupervised and Semisupervised Learning with examples. 5
9. What is cloud computing? What are its basic characteristics? Explain how it can be instrumental for the implementation of Internet of Things (IoT). 1+2+2=5
10. Explain the risks and benefits of virtual currency. 5
11. Describe e-commerce and e-commerce service models. Discuss the importance of cryptography in e-commerce. 2+4+4=10
12. Describe risk. Discuss various approaches to Risk Management. Explain how the technological developments have supported in managing risks in banking sector. 2+4+4=10

- The End -