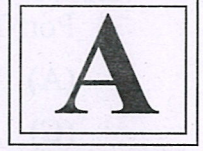


પ્રશ્નપુસ્તિકા નંબર
200005

ICGBU-2024



ઉમેદવારનો બેઠક નંબર

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કુલ પ્રશ્નો : 100

કુલ ગુણ : 100

સમય : 120 મિનિટ

Total Que. : 100

Total Marks : 100

Time : 120 Minutes

તમને સૂચના આપવામાં ન આવે ત્યાં સુધી પ્રશ્નપુસ્તિકા ખોલવી નહીં.

(01) આ પ્રશ્નપત્રમાં કુલ 100 પ્રશ્નો છે. પ્રત્યેક પ્રશ્નનો ઉત્તર A, B, C અને D પૈકી કોઈ એક છે. ઉમેદવાર જો જવાબ ન આપવા માંગતા હોય તો તેના માટે OMR ઉત્તરપત્રમાં વિકલ્પ E આપેલ છે. બધા જ પ્રશ્નોના ઉત્તર આપવા ફરજિયાત છે. આ સાથે અલગ આપેલ OMR ઉત્તરપત્રમાં જ ઉત્તર આપવાના છે.

ઉદાહરણ તરીકે :

ભારતના રાષ્ટ્રપિતા તરીકે કોણ ઓળખાય છે?

- A) સરદાર પટેલ B) સુભાષચંદ્ર બોઝ
C) મહાત્મા ગાંધી D) વિનોબા ભાવે

ઉત્તરપત્ર (OMR SHEET) માં.

Ⓐ Ⓑ ● Ⓓ Ⓔ

ઉપર્યુક્ત ઉદાહરણનો જવાબ "C" છે. આથી "C" નું વર્તુળ ઘાટું (encode) કરેલ છે. સાચી અને ખોટી પદ્ધતિથી વર્તુળ ઘાટું કરવા બાબતની સૂચના OMR માં આપેલ છે જેની નોંધ લેવી.

(02) 1 થી 100 પ્રશ્નો પુરેપૂરા છપાયેલા છે કે કેમ તેની પ્રથમ ખાતરી કરી લો. જો પ્રશ્નો પૂરા છપાયા ન હોય અથવા કોઈ પૃષ્ઠ ફાટેલું હોય કે કોઈ પૃષ્ઠ સામેલ ન હોય અથવા તો અન્ય કોઈ ક્ષતિ જણાય તો તરત જ નિરીક્ષક પાસેથી પ્રશ્નપુસ્તિકા અચૂક બદલાવી લેવી.

ઉમેદવારને OMR ઉત્તરપત્ર મળ્યા બાદ જો તેઓ દ્વારા તેનો નાશ કરવામાં આવશે કે ગુમ કરવામાં આવશે તો તે ઉમેદવારને ગેરલાયક ઠરાવવામાં આવશે.

(03) પરીક્ષા શરૂ થયેથી ઉમેદવાર અધવચ્ચેથી પરીક્ષા ખંડ છોડી શકશે નહીં.

(04) ઉમેદવારે પોતાના બેઠક ક્રમાંકની પ્રશ્નપુસ્તિકા અને OMR ઉત્તરપત્ર મળેલ છે તેની ખાતરી કરી લેવી અન્યથા ખંડ નિરીક્ષકનું તરત જ ધ્યાન દોરવું. ઉમેદવારને OMR ઉત્તરપત્ર મળે કે તરત જ તેમાં નિયત કરેલ જગ્યાએ પોતાનો બેઠક ક્રમાંક સ્વચ્છ અક્ષરે લખવાનો રહેશે તેમજ બેઠક ક્રમાંક નીચે આપેલ વર્તુળ પણ ઘાટું (encode) કરવાનું રહેશે. મળેલ પ્રશ્નપુસ્તિકાનો કોડ નિયત જગ્યાએ લખીને તેની સાથે આપેલ વર્તુળ પણ ઘાટું (encode) કરવાનું રહેશે. લખેલી વિગતો અને ઘાટું (encode) કરેલ વર્તુળની વિગતો યોગ્ય રીતે ભરાયેલ છે તેની ખાતરી કરી લેવી.

(05) પ્રત્યેક સાચા જવાબદીઠ 1 (એક) ગુણ મળવાપાત્ર થશે. ગુણાંકન પદ્ધતિમાં માર્કનસ પદ્ધતિ રાખવામાં આવી છે. જે મુજબ - પ્રત્યેક ખોટા જવાબદીઠ, ખાલી છોડેલ જવાબદીઠ, છેકછાક કરેલ હોય તેવા જવાબદીઠ તથા OMR માં જણાવ્યા પ્રમાણેની ખોટી પદ્ધતિથી કે એક કરતાં વધુ વિકલ્પ દર્શાવેલ જવાબદીઠ 0.25 ગુણ કાપવામાં આવશે. જો ઉમેદવાર જવાબ આપવા માંગતા ન હોય અને વિકલ્પ (E) ઘાટું (encode) કરશે તો 0.25 ગુણ કાપવામાં આવશે નહીં.

(06) OMR ઉત્તરપત્રમાં નિશ્ચિત જગ્યા સિવાય ઉમેદવારે પોતાનો બેઠક ક્રમાંક લખવો નહીં તથા પોતાની ઓળખ છતી થાય તેવી નામ કે અન્ય કોઈ પણ પ્રકારની નિશાની દર્શાવવાની સખત મનાઈ છે. તેમ છતાં પણ કોઈ પણ નિશાની કે ઓળખ કર્યાનું માલૂમ પડશે તો તેને સંપૂર્ણ ગેરશિસ્ત ગણવામાં આવશે અને પરીક્ષા માટે ગેરલાયક ગણવામાં આવશે.

(07) ઉત્તરપત્ર (OMR SHEET) માં ઉમેદવાર તથા નિરીક્ષક બંનેની સહી ફરજિયાત છે. બંનેની સહી વિનાની OMR SHEET (ઉત્તરપત્ર) વાળા ઉમેદવાર ગેરલાયક ઠરશે.

(08) પરીક્ષા દરમ્યાન ઉમેદવાર પાસેથી કોઈ પણ સાહિત્ય, માર્ગદર્શિકા, કાપવી, અન્ય હસ્તલિખિત કે પ્રિન્ટેડ સાહિત્ય, મોબાઈલ ફોન, પેજર, કેલક્યુલેટર, બ્લુટૂથ, સ્માર્ટ વોચ કે અન્ય વીજાણુ ઉપકરણો હોવાનું જણાશે તો ઉમેદવારને ગેરલાયક ગણવામાં આવશે.

(09) આ જવાબવહી કોમ્પ્યુટર દ્વારા તપાસાવાની હોવાથી તે વળે, ફાટે કે બગડે નહિ તેની ખાસ કાળજી રાખવી તથા જવાબવહીની ગડી વાળવી નહીં.

(10) પ્રશ્નપુસ્તિકામાં કોરી જગ્યામાં રફ કામ કરવું. તે માટે અલગ કાળજી આપવામાં આવશે નહીં. જવાબવહીમાં કઈ પણ રફ વર્ક કરવું નહીં. પ્રશ્નપુસ્તિકામાં જવાબો લખવાની મનાઈ છે.

(11) પ્રશ્નપુસ્તિકામાં કોઈ પૃષ્ઠ ફાડવા કે જુદાં કરવાની મનાઈ છે.

(12) ચાલુ પરીક્ષા દરમ્યાન અંદરોઅંદર ગુસપુસ કરવી, અવાજ કરવો કે નિરીક્ષકની સૂચનાઓનું ઉલ્લંઘન કરવું કે અન્ય કોઈ ગેરરીતી કરવી તે ગેરશિસ્ત ગણાશે.

(13) ઉમેદવારે ભૂરી/કાળી બોલપોઈન્ટ પેનથી ઉત્તરો લખવાના છે. અન્ય શાહી કે પેન કે પેન્સિલ તથા સફેદ શાહીનો ઉપયોગ કરી શકાશે નહીં તથા સફેદ શાહી (White Ink), બ્લેડ કે રબરથી કે અન્ય કોઈ પણ રીતે પ્રશ્નના જવાબમાં કરેલા સુધારા માન્ય ગણાશે નહીં.

પરીક્ષા આપનાર ઉમેદવારે ઉત્તરપત્ર (OMR SHEET) વર્ગનિરીક્ષકને પરત કર્યા બાદ જ વર્ગખંડ છોડવાનો રહેશે. તેમ કરવામાં કસુર થયેથી શિસ્તભંગના પગલાં ગણી પરીક્ષા માટે ઉમેદવારને ગેરલાયક ઠેરવવામાં આવશે.

001. In which year, name of Kandla Port Trust is renamed as Pandit Deendayal Port Trust?

- (A) 2016 (B) 2017
(C) 2018 (D) 2019

002. "Adalaj ni Vav" was built by Mahmud Begada in _____.

- (A) 1411 (B) 1512
(C) 1610 (D) 1380

003. Which of the following is / are objective(s) of NITI Aayog?

- (A) To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States.
(B) To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
(C) To focus on technology upgradation and capacity building for implementation of programmes and initiatives
(D) All of the above

004. Economic Survey is published by _____.

- (A) Ministry of Finance (B) NITI Aayog
(C) Indian Statistical Institute (D) Indian Economic Service

005. નીચે આપેલ પૈકી કયું સાચું છે?

- (A) સત્ + નારી = સત્રારી (B) શાળા + ઉપયોગી = શાળોપયોગી
(C) પરમ + ઈશ્વર = પરમેશ્વર (D) આપેલ તમામ

006. નીચેનામાંથી કયો દ્વન્દ્વ સમાસ નથી?

- (A) ભરતીઓટ (B) દાડમાંસ
(C) છળકપટ (D) રાવણવધ

007. Article 29 belongs to which part of Indian Constitution?

- (A) Part II (B) Part III
(C) Part IV (D) Part V

008. Fundamental Duties were included in the Constitution on the recommendation of which of the following committee?
(A) Swaran Singh Committee
(B) Santhanam Committee Shah Committee
(C) J. B. Kripalani Committee
(D) None of the given
009. Scissors : Cloth :: Axe : ?
(A) Wood (B) Grinder
(C) Stone (D) Brick
010. Aakash and Aman have to travel from Ahmedabad to Rajkot in their respective vehicles. Aakash is driving at 80 kmph while Aman is operating at 120 kmph. Obtain the time taken by Aman to reach Rajkot if Aakash takes 3 hrs.
(A) 4 hrs (B) 2 hrs
(C) 2 hours and 45 minutes (D) None of the given
011. What are the two categories of cells which nervous system is made up of?
(A) Gastric chief cell, Parietal cell
(B) Satellite cell and Boettcher cell
(C) Neurons and Glial cells
(D) Tendon cell and Macula densa cell
012. The concept of ICT is related to
(A) storing digital information (B) recording digital information
(C) sending digital information (D) All of the given
013. Give synonym of the following word: "Audacity"
(A) Courage (B) Accurate
(C) Rude (D) Cowardice
014. Give antonym of the following word: "Barrier"
(A) Fertile (B) Obstacle
(C) Assistance (D) Barricade
015. With reference to higher education, E stands for what in NMEICT?
(A) E-content (B) Education
(C) Equal (D) None of the given

016. Which of the following is an online store house of all academic awards like certificates, diplomas, degrees mark sheets etc.?
- (A) SWAYAM
 - (B) National Digital Library
 - (C) National Academic Library
 - (D) National Academic Depository
017. The fourth vertical of HECI will be the _____, which will frame expected learning outcomes for higher education programmes, also referred to as 'graduate attributes'.
- (A) National Accreditation Council
 - (B) Higher Education Grants Council
 - (C) National Higher Education Regulatory Council
 - (D) General Education Council
018. NEP 2020 stated to establish a National Repository of high-quality resources on foundational literacy and numeracy on Government Digital Platforms. What is the name of the Government's Digital Platform?
- (A) DIKSHA
 - (B) DISHA
 - (C) NISHTHA
 - (D) SHIKSHA
019. If the administrative authority within a department is vested in a single individual, then that system is known as _____.
- (A) Board
 - (B) Bureau
 - (C) Commission
 - (D) None of the given
020. Which of the following act prohibits the improper use of State Emblem of India for professional and commercial purposes?
- (A) The State Emblem of India Act, 2005
 - (B) The National Emblem of India Act, 2005
 - (C) The Improper Use and Proper Use of State Emblem of India Act, 2005
 - (D) None of the given

021. Which of the following is correct as per rule 141A of General Financial Rules (GFR), 2005?
- (A) GeM may be utilized by Government buyers for direct online purchases upto Rs. 1,00,000/- through any of the available supplier on the GeM, meeting the requisite quality, specifications and delivery period;
- (B) GeM may be utilized by Government buyers for direct online purchases upto Rs. 5,00,000/- through any of the available supplier on the GeM, meeting the requisite quality, specifications and delivery period;
- (C) GeM may be utilized by Government buyers for direct online purchases upto Rs. 50,000/- through any of the available supplier on the GeM, meeting the requisite quality, specifications and delivery period;
- (D) None of the given
022. An appointment to any service or post included in the State service shall be made by the State Government or by an authority duly empowered in that behalf by the State Government _____.
- (A) on the result of a competitive examination held for the purpose
- (B) by promotion or transfer
- (C) by direct selection
- (D) All of the given
023. Qualifying service for the purpose of pension of a government employee does not include as per Gujarat Civil Service (Pension) Rules, 2002.
- (A) Service on fixed pay basis (B) Service as an apprentice
- (C) Service on contract basis (D) All of the given
024. As per Gujarat State Biotechnology Policy, indicative list of Ecosystem strengthening projects includes _____
- (A) Genome Sequencing
- (B) Plug and Play facilities
- (C) Clinical Testing including Animal Testing Facilities
- (D) All of the given
025. Who is the Director General of Gujarat Biotechnology University?
- (A) Shri Dilip Shanghvi (B) Shri Sudhir Vaid
- (C) Dr. Subeer S. Majumdar (D) Dr. J. C. Lilani

026. What is the time complexity of push and pop operations in a stack?
 (A) $O(n)$ (B) $O(\log n)$
 (C) $O(1)$ (D) $O(n^2)$
027. Which of the following is not an application of a queue data structure?
 (A) Job scheduling (B) Tree traversal
 (C) Parsing expressions (D) Depth-First Search
028. Which of the following operations is performed more efficiently by a doubly linked list than by a singly linked list?
 (A) Deleting a node whose location is given
 (B) Searching for an element
 (C) Inserting a node after a given node
 (D) Traversing all nodes
029. Which of the following properties is true for a max-heap?
 (A) The root is the smallest element.
 (B) The root is the largest element.
 (C) The root is neither the smallest nor the largest element.
 (D) The left child is always greater than the right child.
030. In an undirected graph with n vertices and e edges, what is the maximum number of edges?
 (A) n^2 (B) $n*(n-1)/2$
 (C) $n*(n+1)/2$ (D) $n*(n-1)$
031. The members of the set $S = \{x \mid x \text{ is the square of an integer and } x < 100\}$ is _____
 (A) $\{0, 2, 4, 5, 9, 55, 46, 49, 99, 81\}$
 (B) $\{1, 4, 9, 16\}$
 (C) $\{0, 1, 4, 9, 16, 25, 36, 49, 64, 81\}$
 (D) $\{0, 1, 4, 9, 25, 36, 49, 123\}$
032. Which of the following is a lattice but not a distributive lattice?
 (A) Boolean algebra
 (B) Set of divisors of 30 with divisibility relation
 (C) Set of natural numbers with usual order
 (D) Set of real numbers with usual order
033. Which of the following is a property of a Hasse diagram for a poset?
 (A) It shows all possible relations explicitly
 (B) It shows only the transitive reduction
 (C) It is always a complete graph
 (D) It contains cycles to represent order

034. Which of the following is true for a bipartite graph?
(A) It contains an odd-length cycle
(B) It can be colored with two colors
(C) It is always complete
(D) It has a Hamiltonian cycle
035. How many ways can a committee of 4 people be chosen from a group of 10 people?
(A) 210 (B) 252
(C) 120 (D) 302
036. What is the primary advantage of using a hash table over a binary search tree?
(A) Better average-case time complexity for search operations
(B) Lower memory usage
(C) Simplified code
(D) Easier to implement
037. What is the time complexity of Depth First Search (DFS) in an undirected graph with V vertices and E edges?
(A) $O(V+E)$ (B) $O(V \log V)$
(C) $O(V^2)$ (D) $O(V E)$
038. Which of the following algorithms has the worst-case space complexity of $O(1)$?
(A) Merge Sort (B) Quick Sort
(C) Bubble Sort (D) Insertion Sort
039. What is the correct order of growth for the function $f(n) = 6n^2 + 2n + 3$?
(A) $O(n)$ (B) $O(n^2)$
(C) $O(n^3)$ (D) $O(\log n)$
040. Which of the following problems is typically solved using a divide and conquer approach?
(A) Finding the shortest path in a graph
(B) Sorting an array
(C) Searching in a binary search tree
(D) Matrix multiplication
041. If a table has a foreign key referencing its own primary key, what type of relationship does this indicate?
(A) One-to-One (B) One-to-Many
(C) Many-to-Many (D) Recursive

042. Which normal form requires that a relation with multiple candidate keys should have no overlapping attributes among these candidate keys?
- (A) Third Normal Form (3NF)
 - (B) Boyce-Codd Normal Form (BCNF)
 - (C) Fourth Normal Form (4NF)
 - (D) Fifth Normal Form (5NF)
043. Which file organization method offers the best performance for a range search query?
- (A) Heap file organization
 - (B) Sequential file organization
 - (C) Indexed file organization
 - (D) Hashed file organization
044. What is the primary disadvantage of a dense index as compared to a sparse index?
- (A) Slower search time
 - (B) Higher storage overhead
 - (C) Cannot be used with primary keys
 - (D) Only supports sequential access
045. Which concurrency control technique involves validating a transaction's changes at the end of the transaction before making them permanent?
- Hard
- (A) Two-phase locking
 - (B) Timestamp-based protocol
 - (C) Optimistic concurrency control
 - (D) Multiversion concurrency control
046. Which file system supports file permissions and attributes in Unix-like operating systems?
- (A) FAT32
 - (B) NTFS
 - (C) EXT4
 - (D) HFS+
047. What is the purpose of a page table in a virtual memory system?
- (A) To manage the hardware interrupts.
 - (B) To translate logical addresses to physical addresses.
 - (C) To keep track of free memory space.
 - (D) To handle I/O operations.
048. Which of the following is a disadvantage of using threads over processes?
- (A) Increased complexity of synchronization
 - (B) Higher memory consumption
 - (C) Slower context switching
 - (D) Limited scalability

049. Which of the following techniques is used to handle deadlock?
(A) Prevention (B) Detection
(C) Avoidance (D) All of the above
050. Which of the following is NOT a method of inter-process communication?
(A) Signals (B) Pipes
(C) Threads (D) Message queues
051. Which of the following statements about IPv6 is true?
(A) IPv6 addresses are 32 bits long.
(B) IPv6 uses DHCP for address configuration.
(C) IPv6 supports multicast but not broadcast.
(D) IPv6 addresses are backward compatible with IPv4.
052. Which LAN technology uses CSMA/CD (Carrier Sense Multiple Access with Collision Detection)?
(A) Ethernet (B) Token Ring
(C) FDDI (D) Wi-Fi
053. In the context of routers, what is the purpose of a routing table?
(A) To store MAC addresses of connected devices
(B) To store IP addresses of neighboring routers
(C) To determine the best path to forward packets
(D) To filter incoming packets based on IP headers
054. Which TCP congestion control algorithm uses additive increase and multiplicative decrease?
(A) Slow Start (B) Congestion Avoidance
(C) Fast Retransmit (D) Tahoe
055. What authentication method is commonly used to establish secure connections in HTTPS?
(A) HMAC (B) RSA
(C) AES (D) SSL
056. Which of the following operations on a data cube involves selecting a specific set of dimensions and fixing the values of other dimensions?
(A) Drill-down (B) Slice
(C) Dice (D) Roll-up
057. Which component of a data warehouse is responsible for storing integrated, non-volatile, and time-variant data?
(A) OLAP server (B) ETL tools
(C) Data marts (D) Central repository

058. Which system is designed to handle a large number of short online transactions?
- (A) OLAP (B) OLTP
(C) Data Warehousing (D) ETL
059. Which of the following is a key characteristic of NoSQL databases?
- (A) Fixed schema (B) Horizontal scalability
(C) ACID transactions (D) Relational data model
060. What is the goal of the clustering technique in data mining?
- (A) To assign records to predefined categories
(B) To predict future values of a variable
(C) To find natural groupings in data
(D) To discover relationships between variables
061. In which scenario would you prefer using a NoSQL database over a SQL database?
- (A) When you require strong ACID properties for transactions.
(B) When your data is highly structured and relationships among data are crucial.
(C) When you need to handle large volumes of unstructured or semi-structured data.
(D) When you need to perform complex join operations frequently.
062. Which NoSQL database type is most suitable for representing and querying complex hierarchical relationships?
- (A) Key-Value Stores (B) Column-Family Stores
(C) Document Stores (D) Graph Databases
063. According to the CAP theorem, which three properties cannot be guaranteed simultaneously in a distributed system?
- (A) Consistency, Availability, Partition Tolerance
(B) Consistency, Atomicity, Durability
(C) Availability, Scalability, Durability
(D) Partition Tolerance, Scalability, Reliability
064. Which property of NoSQL databases allows them to handle large volumes of unstructured data effectively?
- (A) ACID transactions (B) Flexible schema
(C) Strong consistency (D) Normalization

065. Which of the following best describes the 'Partition Tolerance' aspect of the CAP theorem?
- (A) The system continues to operate even if some data is lost.
 - (B) The system can continue to function even if there is a network partition separating nodes.
 - (C) The system always returns the most recent write for a given piece of data.
 - (D) The system can handle an increased load without performance degradation.
066. In data management, what does ETL stand for?
- (A) Evaluate, Transform, Load
 - (B) Extract, Transform, Load
 - (C) Enhance, Transfer, Load
 - (D) Encrypt, Transfer, Load
067. Which service model of cloud computing provides the infrastructure over the internet?
- (A) SaaS
 - (B) PaaS
 - (C) IaaS
 - (D) DaaS
068. Which of the following issues is a common challenge in pipelining?
- (A) Data hazard
 - (B) High latency
 - (C) Low bandwidth
 - (D) Reduced security
069. What is the primary benefit of horizontal scaling in cloud computing?
- (A) Adding more resources to a single node
 - (B) Increasing the processing power of a single server
 - (C) Adding more nodes to a system
 - (D) Reducing the number of nodes in a system
070. Which technique is commonly used to ensure high data availability in distributed systems?
- (A) Data mining
 - (B) Data replication
 - (C) Data archiving
 - (D) Data encryption
071. Which platform-specific language is used for iOS app development?
- (A) Java
 - (B) Swift
 - (C) Kotlin
 - (D) C#
072. Which operating system was primarily used in early PDAs?
- (A) Windows Mobile
 - (B) Palm OS
 - (C) Symbian OS
 - (D) Android

073. Which multiple access technique is used by GSM?
(A) CDMA (B) SDMA
(C) TDMA (D) OFDMA
074. Which of the following APIs is used in Android to handle asynchronous tasks and background services efficiently?
(A) AsyncTask (B) JobScheduler
(C) IntentService (D) WorkManager
075. In iOS development, which framework is commonly used for managing layout constraints programmatically?
(A) UIKit (B) CoreData
(C) AutoLayout (D) CoreGraphics
076. Which model is widely used for assessing and improving software processes?
(A) Capability Maturity Model Integration (CMMI)
(B) Waterfall Model
(C) V-Model
(D) Agile Model
077. In a SCADA system, which component is primarily responsible for collecting data from sensors and devices?
(A) Human-Machine Interface (HMI)
(B) Programmable Logic Controller (PLC)
(C) Remote Terminal Unit (RTU)
(D) Master Terminal Unit (MTU)
078. SLA compliance is monitored using which of the following metrics?
(A) Key Performance Indicators (KPIs)
(B) SWOT Analysis
(C) Fishbone Diagram
(D) PEST Analysis
079. What is the primary purpose of a Gantt chart in project management?
(A) To identify potential risks
(B) To allocate resources
(C) To visualize the project schedule
(D) To manage stakeholders
080. Which of the following is NOT a type of non-functional testing?
(A) Performance testing (B) Usability testing
(C) Unit testing (D) Security testing

081. Which attack technique uses multiple systems to target a single system, causing a denial of service?
(A) Smurf Attack (B) DDoS Attack
(C) Spoofing (D) Pharming
082. Which encryption method uses the same key for both encryption and decryption?
(A) Asymmetric encryption
(B) Symmetric encryption
(C) Hashing
(D) Steganography
083. Which of the following is a tool commonly used for network scanning and vulnerability detection in ethical hacking?
(A) Wireshark (B) Metasploit
(C) Nmap (D) Burp Suite
084. Which method is often used by attackers to impersonate a legitimate Wi-Fi hotspot to capture user data?
(A) MAC Address Filtering (B) Evil Twin Attack
(C) SSID Cloaking (D) WPA2 Cracking
085. Which standard provides guidelines for information security management systems (ISMS)?
(A) ISO 27001 (B) ISO 9001
(C) ISO 14001 (D) ISO 31000
086. Which component of the COBIT5 framework is primarily focused on aligning IT goals with business goals?
(A) Evaluate, Direct, and Monitor (EDM)
(B) Build, Acquire, and Implement (BAI)
(C) Deliver, Service, and Support (DSS)
(D) Align, Plan, and Organize (APO)
087. What does the "e-Kranti" initiative primarily aim to achieve within the Digital India program?
(A) To enhance rural transportation facilities
(B) To digitally empower citizens by providing electronic delivery of services
(C) To promote traditional art and culture
(D) To establish physical government offices in rural areas

088. In the context of E-Governance, what does the term "G2B" stand for and what is its primary purpose?
- (A) Government-to-Business, facilitating business interactions with government
 - (B) Government-to-Business, managing internal government communications
 - (C) Government-to-Business, regulating citizen engagement
 - (D) Government-to-Business, providing social services to citizens
089. How does the concept of 'Smart Villages' differ from 'Smart Cities' in the context of e-Governance?
- (A) Focuses on digital urbanization
 - (B) Emphasizes digital rural development and connectivity
 - (C) Prioritizes large-scale industrialization
 - (D) Implements technology in metropolitan areas
090. Which of the following policies is crucial for ensuring data privacy and security in e-Governance applications?
- (A) General Data Protection Regulation (GDPR)
 - (B) Trade-Related Aspects of Intellectual Property Rights (TRIPS)
 - (C) United Nations Convention on the Law of the Sea (UNCLOS)
 - (D) Kyoto Protocol
091. Which of the following is NOT a part of the Mission Mode Projects (MMPs) under the National e-Governance Plan (NeGP)?
- (A) e-District
 - (B) Passport Seva
 - (C) e-Courts
 - (D) Digital Library
092. What is the focus of the Gujarat IT/ITeS Policy 2016-21?
- (A) Developing rural IT infrastructure
 - (B) Promoting IT-based startups and innovation
 - (C) Expanding e-commerce
 - (D) Implementing blockchain technology in governance
093. What is the main objective of the MeghRaj initiative under the GI Cloud?
- (A) To provide cloud services to the private sector
 - (B) To promote cloud computing in rural schools
 - (C) To utilize and harness the benefits of cloud computing for effective delivery of e-services
 - (D) To develop new hardware for cloud computing

094. What is the primary legislation governing IT and cyber laws in India?
(A) The Information Technology Act, 2000
(B) The Cybersecurity Act, 2015
(C) The Digital India Act, 2018
(D) The Data Protection Act, 2020
095. Which platform is designed to provide a unified access to various government services via mobile?
(A) UMANG
(B) DigiLocker
(C) MyGov
(D) M-KISAN
096. Which technology is primarily responsible for enabling decentralized finance (DeFi) applications?
(A) Blockchain
(B) Artificial Intelligence
(C) Quantum Computing
(D) Virtual Reality
097. Which programming language is gaining popularity for its versatility in building scalable web applications and server-side scripting?
(A) Java
(B) Python
(C) Ruby
(D) Swift
098. Which technology is crucial for enabling real-time data processing and analysis in Internet of Things (IoT) applications?
(A) Cloud Computing
(B) Edge Computing
(C) Virtualization
(D) Machine Learning
099. What is the primary focus of quantum computing, distinguishing it from classical computing?
(A) Faster data transmission
(B) Enhanced security protocols
(C) Solving complex mathematical problems
(D) Simulating virtual environments
100. Which technology is integral to the development of autonomous vehicles for enhancing navigation and safety?
(A) Augmented Reality
(B) LiDAR (Light Detection and Ranging)
(C) 5G Networks
(D) Robotics



પરીક્ષા પૂરી થયા બાદ (OMR SHEET) ઉત્તરપત્ર વર્ગ નિરીક્ષકને
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