

**RURAL DEVELOPMENT DEPARTMENT
GOVERNMENT OF MIZORAM
Examination for recruitment under MGNREGA**

Computer Assistant

COMPUTER SUBJECT

SECTION-I: OBJECTIVE TYPE

I. Choose the correct answer. (30 x 1 mark = 30 marks)

1. Which of the following is the smallest unit of data in computer?
 - a. Bit
 - b. Byte
 - c. Pixel
 - d. Megabyte
2. Which programming language is often referred to as the "mother of all languages"?
 - a. Java
 - b. C
 - c. COBOL
 - d. Fortran
3. What does HTML stand for?
 - a. Hyper Text Markup Language
 - b. High-level Text Management Language
 - c. Hyper Transfer Markup Language
 - d. Hyperlinking and Text Markup Language
4. Which data structure follows the Last-In-First-Out (LIFO) principle?
 - a. Queue
 - b. Stack
 - c. Linked List
 - d. Tree
5. Which algorithm is used to find the shortest path in a graph?
 - a. Binary Search
 - b. Depth-First Search
 - c. Breadth-First Search
 - d. Dijkstra's Algorithm
6. What does SQL stand for?
 - a. Simple Query Language
 - b. Structured Query Language
 - c. System Query Language
 - d. Standard Query Logic

7. Which programming model emphasizes the use of functions and procedures?
 - a. Procedural Programming
 - b. Functional Programming
 - c. Object-Oriented Programming
 - d. Event-Driven Programming
8. Which component of the computer is responsible for performing arithmetic and logical operations?
 - a. Central Processing Unit (CPU)
 - b. Random Access Memory (RAM)
 - c. Hard Disk Drive (HDD)
 - d. Graphics Processing Unit (GPU)
9. Which protocol is used for sending emails over the internet?
 - a. HTTP
 - b. FTP
 - c. SMTP
 - d. TCP
10. Which of the following is not a data type in Python?
 - a. int
 - b. float
 - c. string
 - d. decimal
11. What is the main purpose of an operating system?
 - a. To manage software and hardware resources
 - b. To run applications
 - c. To edit documents
 - d. To design graphics
12. Which type of network topology involves connecting all devices in a circle?
 - a. Star
 - b. Bus
 - c. Ring
 - d. Mesh
13. Which sorting algorithm has a worst time complexity of $O(n \log n)$?
 - a. Bubble Sort
 - b. Insertion Sort
 - c. Quick Sort
 - d. Merge Sort
14. Which programming language is commonly used for developing web applications?
 - a. C
 - b. Python
 - c. Ruby
 - d. JavaScript

15. What does URL stand for?
 - a. Universal Reference Language
 - b. Uniform Resource Locator
 - c. Unified Routing Language
 - d. User Registration Link
16. Which data structure represents a hierarchical relationship between elements?
 - a. Array
 - b. Linked List
 - c. Tree
 - d. Stack
17. Which protocol is used to secure communication over the internet?
 - a. HTTP
 - b. FTP
 - c. SSL/TLS
 - d. SMTP
18. Which programming language is known for its simplicity and readability?
 - a. Assembly Language
 - b. COBOL
 - c. Java
 - d. Python
19. What does CPU cache help improve?
 - a. Disk storage
 - b. RAM capacity
 - c. Processor speed
 - d. Network connectivity
20. Which database model uses tables to store data with rows and columns?
 - a. Hierarchical
 - b. Network
 - c. Relational
 - d. Object-Oriented
21. What does IP stand for in the context of computer networks?
 - a. Internet Provider
 - b. Internet Protocol
 - c. Information Protocol
 - d. Internet Port
22. Which type of malware is designed to spread from one computer to another?
 - a. Spyware
 - b. Trojan
 - c. Virus
 - d. Worm
23. Which data structure provides constant-time access to elements?
 - a. Linear data structures
 - b. Tree
 - c. Hash Table
 - d. All of the above

24. What is the purpose of a firewall in computer networks?
- To block unwanted emails
 - To prevent data loss
 - To secure the network from unauthorized access
 - To optimize network speed
25. What is the primary function of an assembler in the context of programming?
- To execute code
 - To translate high-level code into machine code
 - To manage memory allocation
 - To design user interfaces
26. Which ribbon tab is used to change the font formatting in Microsoft Word?
- Insert
 - Review
 - Home
 - View
27. Which option in Microsoft Word can be used to create a soft copy of the current document?
- New
 - Save As
 - Print
 - Close
28. Which keyboard shortcut is used to insert a new worksheet to an existing workbook in Microsoft Excel?
- Ctrl + F1
 - Ctrl + N
 - Shift + F11
 - Ctrl + Alt + N
29. What does a cell reference like "\$A\$1" indicate in Microsoft Excel?
- The cell is locked for editing
 - The cell contains a formula
 - The cell is empty
 - The cell reference is absolute
30. Which feature in Microsoft Excel is used to protect a worksheet or workbook from unauthorized changes?
- Protect Sheet
 - Hide Cells
 - AutoFill
 - Merge Cells

II. Write "True" or "False" against the statement provided. (30 x 1 mark = 30 marks)

1. A byte is equal to 8 bits. _____
2. Python is a statically typed programming language. _____

3. SQL is used for creating attractive web layouts. _____
4. The "Ctrl + Z" shortcut is used to redo the last action in most applications. _____
5. A linked list consists of nodes where each node points to the previous node. _____
6. An API (Application Programming Interface) allows different software applications to communicate with each other. _____
7. PHP is a Client-side scripting language embedded in HTML in its simplest form. _____
8. An array is a data structure that can store elements of different data types. _____
9. HTML is a programming language used to create dynamic web applications. _____
10. Ethernet is a protocol used for wireless communication. _____
11. A gigabyte is equivalent to 1024 megabytes. _____
12. RAID stands for Redundant Array of Inexpensive Disks and is used for data backup. _____
13. IPv6 is an older version of the Internet Protocol used for networking. _____
14. A web browser is an example of application software. _____
15. Cloud computing refers to storing and accessing data and programs over portable harddisks. _____
16. Turing completeness is a property that indicates a programming language can simulate a Turing machine. _____
17. Multitasking refers to the ability of an operating system to execute multiple tasks simultaneously. _____
18. DNS stands for Domain Name Service and is responsible for translating domain names to IP addresses. _____
19. A distributed denial-of-service (DDoS) attack aims to make a network or service unavailable by overwhelming it with traffic. _____

20. The BIOS (Basic Input/Output System) is responsible for booting the computer and initializing hardware components. _____
21. FLOOR function is used to round a number down to the nearest integer in Microsoft Excel. _____
22. COUNTA(A1:A10) in Microsoft Excel counts the number of both empty and non-empty cells in the range A1 to A10. _____
23. The "Text Highlight Color" button on the Home tab in Microsoft Word allows you to change the font color. _____
24. The "Review" tab in Microsoft Word allow you to check spelling and grammar. _____
25. Page Layout option is used to change the orientation of a page to landscape in Microsoft Word. _____
26. Press Shift + Enter keys to change the line spacing in a paragraph in Microsoft Word. _____
27. The function SUM(A1:A5) do in Microsoft Excel calculates the sum of values in cells A1 to A5. _____
28. MAXIMIZE function is used to find the largest value in a range of cells in Microsoft Excel. _____
29. A PivotTable in Microsoft Excel is used to summarize and analyze data. _____
30. Press **Ctrl + =** to align text to the center of a page in Microsoft Word. _____

III. Match the Terms in Column A with related Terms from Column B by filling the corresponding alphabet in the space provided (10 x 1 mark = 10 marks)

Column A		Write the matching alphabet from Column B	Column B	
1	HTTP status code 404		A	Manages operations of computer and hardware
2	CPU cache		B	time delay between sending and receiving data in a network
3	Cascading Style Sheet		C	Uses two values only (true and false)
4	Hash function		D	Small, fast storage area used to store frequently accessed data
5	Kernel		E	Broken or missing link
6	Boolean logic		F	Used for encryption
7	Latency		G	Describing the presentation of a document written in a markup language
8	Recursive function		H	Decentralized digital ledger technology
9	XOR gate		I	Calls itself within its own definition
10	Blockchain		J	gives 1 as output when the number of 1 in the inputs is odd