RURAL DEVELOPMENT DEPARTMENT
GOVERNMENT OF MIZORAM
Examination for recruitment under MGNREGA

MIS Nodal Officer

COMPUTER SUBJECT

SECTION-I: OBJECTIVE TYPE

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

1. What is Von Neumann architecture?
    a. Single Instruction, Single Data (SISD)
    b. Single Instruction, Multiple Data (SIMD)
    c. Multiple Instruction, Multiple Data (MIMD)
    d. Multiple Instruction, Single Data (MISD)

2. _____ is an example of Hardware.
    a. MS Word
    b. Operating System
    c. Mouse
    d. Google Chrome

3. A CPU has 12 registers and uses 6 addressing modes. RAM is 64K x 32. What is the maximum size of the op-code field if the instruction has a register operand and a memory address operand?
    a. 8 bits
    b. 9 bits
    c. 10 bits
    d. 12 bits

4. _____ is not the type of shape that can be inserted using the "Shapes" feature in MS Word.
    a. Rectangles
    b. Block arrows
    c. Equation shapes
    d. SmartArt

5. Which of the following acts as a temporary storage location to hold and intermediate result in mathematical and logical calculations?
    a. RAM
    b. Accumulator
    c. Program Counter
    d. Memory Address Register

6. In computer programming, a _____ is a value that can change, depending on conditions or on information passed to the program.
    a. Variable
    b. Constant
    c. Data
    d. Syntax

7. The mnemonic op-code to save data to memory is _____.
    a. SAVE
    b. LOAD
    c. STORE
    d. PUT

8. A CD-ROM is an example of _____.
    a. Cache Memory
    b. Random Access Memory
    c. Read Only Memory
    d. All the above

9. Which of the following is not a bitwise operator?
    a. |
    b. ^
    c. .
    d. <<

10. The section of the CPU that selects, interprets and sees to the execution of program instructions is _____.
    a. Register Unit
    b. Control Unit
    c. ALU
    d. Memory

11. Which function will you use to enter current time in an Excel worksheet cell?
    a. currentTime( )
    b. time( )
    c. now( )
    d. All the above

12. A chip having 150 gates will be classified as _____.
    a. Small Scale Integration (SSI)
    b. Medium Scale Integration (MSI)
    c. Large Scale Integration (LSI)
    d. Very Large Scale Integration (VLSI)

13. _____ is not an advantage of Distributed Systems.
    a. Incremental growth
    b. Reliability
    c. Resource sharing
    d. None of the above

14. Dynamic RAM is slower than Static RAM because _____.
    a. DRAM uses flip-flops
    b. DRAM is bigger
    c. DRAM requires refreshing
    d. DRAM is costlier

15. In MS Word 'Insert Hyperlink' feature, _____ is not an available option to select the link to.
    a. Existing file or web page
    b. Place in this document
    c. GPS location
    d. Email address

16. The _____ operation in SQL is used to display the content of a table.
    a. SELECT
    b. SYNTAX
    c. SHOW
    d. VIEW

17. The fetch and execution cycles are interleaved with the help of _____.
    a. Modification in processor architecture
    b. Clock
    c. Control unit
    d. Program Counter

18. To increase the speed of memory access in pipelining, we make use of _____.
    a. Special memory locations
    b. Special purpose registers
    c. Cache
    d. Buffers

19. To return the remainder after a number is divided by a divisor in EXCEL we use the _____ function.
    a. ROUND( )
    b. MOD( )
    c. DIV( )
    d. REMAIN( )

20. A subquery in an SQL SELECT statement:
    a. can only be used with two tables.
    b. can always be duplicated by a join.
    c. has a distinct form that cannot be duplicated by a join.
    d. cannot have its results sorted using ORDER BY.

21. What part of 192.168.10.51 is the Network ID, assuming a default subnet mask?
    a. 192
    b. 192.168.10
    c. 10.51
    d. 168.10

22. To save an existing MS Word file in a PDF format, we should use _____ command.
    a. Save
    b. Save As
    c. Save and Send
    d. Advance

23. Testing a website on how many simultaneous visits it can optimally handle is called
    a. Alpha Testing
    b. Load Testing
    c. Black Box Testing
    d. Regression Testing

24. How is an array initialized in C language?
    a. int a[3] = {1, 2, 3};
    b. int a = {1, 2, 3};
    c. int a[] = new int[3];
    d. int a(3) = [1, 2, 3];

25. What is the maximum number of swaps that can be performed in the Selection Sort algorithm?
    a. n-1
    b. n
    c. 1
    d. n/2

26. What is the full form of BIOS?
    a. Between input-output system
    b. Binary input-output system
    c. Basic input/output system
    d. All of the above

27. Where are the errors and bugs recorded?
    a. Scheduler
    b. Task Manager
    c. Running process
    d. Logfile

28. When a process is scheduled to run after some execution, it is in _____ state.
    a. New
    b. Run
    c. Ready
    d. Terminate

29. Arrange the memories in increasing order of their access time (fastest access first) by CPU for an instruction or data.
    a. Disk, RAM, Cache
    b. RAM, Disk, Cache
    c. Cache, Disk, RAM
    d. Cache, RAM, Disk

30. Memory fragmentation results in _____.
    a. Stack overflow
    b. Page Fault
    c. Better utilization of memory
    d. Poor utilization of memory

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

1. In a peer-to-peer network, any client computer can also be a server.
    _____

2. The standard protocol of the Internet is Ethernet.   _____

3. The Open System Interconnection (OSI) model has 5 layers.   _____

4. A HUB is a networking device.   _____

5. TCP/IP stands for Transmit and Control Protocol/Internet Protocol.
    _____

6. The first computer is called an abacus.   _____

7. On a touch-screen laptop, the laptop screen is both an input and an output device.
    _____

8. During a write operation if the required block is not present in the cache then *Write Delay* occurs.
    _____

9. Cache memory is an extremely fast memory type that acts as a buffer between RAM and the CPU.

    _____

10. A Printer is an example of an Input device.

    _____

11. ASCII stands for American Scientific code for information interchange.

    _____

12. A collection of 8 byes is called a Bit.

    _____

13. The strategy of allowing processes that are logically runnable to be temporarily suspended is called preemptive scheduling.

    _____

14. Stack Data Structure is a FIFO (First In First Out)

    _____

15. When a process or thread enters a waiting state because a requested system resource is held by another waiting process, which in turn is waiting for another resource held by another waiting process, it is called Deadlock.

    _____

16. When a computer is first turned on or restarted, a special type of absolute loader called Boot Loader is executed.

    _____

17. Microsoft Outlook is an example of a DBMS.

    _____

18. Stack data structure is mainly used for implementing the recursive algorithm.

    _____

19. When transaction is taken for processing directly and is validated immediately before being taken up for further processing it is called Batch Processing.

    _____

20. In Microsoft Excel, you can only insert one column, row or cell at a time.

    _____

21. The total number of rows in a worksheet in Excel is 1,04,8576.

    _____

22. Long text within one cell can be made to display in multiple lines within the cell using Wrap Text.

    _____

23. In Excel, the cell reference for cell range of A2 to M12 is A2-M12.

    _____

24. In Excel, it is possible to change the direction of text in a cell using Orientation.

    _____

25. The MS Excel feature to keep a portion of the sheet visible while the rest of the sheet can be scrolled is *Side by Side.* _____

26. In Microsoft Word, the shortcut key for Page Break is Ctrl+Break. _____

27. Drop Cap is used to create a large capital letter at the beginning of a paragraph in MS Word. _____

28. To copy the format of a text and apply it to another text in the MS Word document we can use Copy Paste feature. _____

29. Insertions, deletions and formatting changes in MS Word can be tracked using 'Track Changes' feature. _____

30. Macros can be created using scripts or recording. _____

III. Match the Terms in Column A with related Terms from Column B by filling the corresponding alphabet in the space provided (5 x 1 mark = 5 marks)

	Column A	Write the matching alphabet from Column B		Column B
1	Buffer		A	Shows steps as boxes of different types which are connected with arrows
2	Pixel		B	Requires Input/Output module to access it
3	Flowchart		C	Smallest visual element on a video monitor
4	JPG, BMP, PNG		D	Physical memory storage used to store data temporarily
5	Secondary Memory		E	Graphical file extensions

SECTION-II: DESCRIPTIVE AND LONG ANSWERS

IV. Explain the NAND Logic Gate with Diagram and Truth Table. (3 marks)

OR

Explain the Physical layer, Data Link layer and Network layer of the OSI Model. (3 marks)

V. Consider the table named *items_table* below and answer the questions. (2 x 1 mark = 2 marks)

Item Code	Name	Category Price	Unit Price	Sales
0001	Pencil	Stationery	5.00	8.00
0002	Pen	Stationery	8.00	10.00
0003	NoteBook	Stationery	10.00	20.00
0004	Chappal	Footwear	50.00	70.00
0005	Apple	Fruits	60.00	90.00
0006	Orange	Fruits	40.00	60.00
0007	Pen	Stationery	10.00	12.00

1. Write an SQL query to display the *Item_Code* and *Name* of items whose *Unit_Price* is less than or equal to 10.

2. Write an SQL query to delete all items whose *Name* is 'Pen' from *items_table*.