



**OFFICE OF THE ENGINEER-IN-CHIEF
PUBLIC HEALTH ENGINEERING DEPARTMENT
AIZAWL : MIZORAM**

**WRITTEN EXAMINATION : 2025
FOR THE POST OF**

**WELDER
(P.E & REGULAR)**

PAPER-II

Code No: _____
(For Official Use)

Signature of Invigilator

SUBJECT (Part)	MARKS OBTAINED
Part-A Simple Arithmetic (50x2=100 marks)	
Part-B Basic Computer Knowledge (50x2=100 marks)	
Total Marks obtained (Full Marks-200)	

Signature of Examiner



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(To be filled in by Candidate)

Signature of Candidate

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Instructions:

1. The question paper will also serve as the answer sheet. Candidates are required to answer Parts A, B, directly on the question/answer sheet using Tick (✓) Marks.
 2. Time : 3 Hours
-

PART-A
SIMPLE ARITHMETIC
(50X2=100 Marks)

1. Which of the following is a prime number ?
(a) 9 ☐ (b) 2 ☐
(c) 4 ☐ (d) 8 ☐
2. Find the value of $(17)^3$
(a) 4913 ☐ (b) 4823 ☐
(c) 4573 ☐ (d) 4713 ☐
3. Which of the following is the smallest prime number?
(a) 1 ☐ (b) 4 ☐
(c) 2 ☐ (d) 6 ☐
4. Multiplicative inverse of 7 is
(a) 7^2 ☐ (b) $7/1$ ☐
(c) -7 ☐ (d) $1/7$ ☐
5. Convert 32% into a fraction
(a) $4/25$ ☐ (b) $8/25$ ☐
(c) $2/25$ ☐ (d) $6/25$ ☐
6. Find the sum of first 20 natural numbers
(a) 230 ☐ (b) 200 ☐
(c) 210 ☐ (d) 310 ☐
7. A Car is running at 4 km/hr. How much time it will take to cover 12 km
(a) 3 hr ☐ (b) 4 hr ☐
(c) 2 hr ☐ (d) 5 hr ☐
8. Find the average of all numbers between 6 and 34 which are divisible by 5
(a) 15 ☐ (b) 20 ☐
(c) 25 ☐ (d) 30 ☐
9. A's income is 25% more than that of B. How many percent is B's income less than that of A
(a) 10% ☐ (b) 15% ☐
(c) 20% ☐ (d) 25% ☐
10. If the cost price of 6 pens is equal to the selling price of 4 pens, then the gain percent is-
(a) 40% ☐ (b) 50% ☐
(c) 60% ☐ (d) 30% ☐
11. Rs 1000 is divided among X, Y and Z in the ratio of 5:7:8, then Y's share is-
(a) Rs 400 ☐ (b) Rs 250 ☐
(c) Rs 300 ☐ (d) Rs 350 ☐

12. A TV is purchased at Rs 5000 and sold at Rs 4000, find the lost percent
 (a) 15% ☐ (b) 20% ☐
 (c) 25% ☐ (d) 10% ☐
13. 20% of a number is 12. Find 50% of the same number.
 (a) 20 ☐ (b) 25 ☐
 (c) 30 ☐ (d) 35 ☐
14. If $2 : 9 :: X : 18$, then find the value of X
 (a) 4 ☐ (b) 2 ☐
 (c) 6 ☐ (d) 3 ☐
15. In a college, the ratio of the number of boys to girls is 8 : 5. If there are 200 girls, the total number of students in the college is-
 (a) 450 ☐ (b) 520 ☐
 (c) 630 ☐ (d) 700 ☐
16. Divide Rs 9000 among A, B, C in the ration 2 : 3 : 4. Find B's share
 (a) Rs 3000 ☐ (b) Rs 2000 ☐
 (c) Rs 4000 ☐ (d) Rs 5000 ☐
17. If $2 : 3 :: X : 150$, find the value of X
 (a) 50 ☐ (b) 70 ☐
 (c) 100 ☐ (d) 120 ☐
18. Find the compound interest if the rate is given per annum, P=Rs 24000 for 3 years at 10% per annum, compounded annually.
 (a) Rs 7210 ☐ (b) Rs 7944 ☐
 (c) Rs 8500 ☐ (d) Rs 9600 ☐
19. Find simple interest on Rs 4000 for 2 years at the rate of 5% per annum.
 (a) Rs 500 ☐ (b) Rs 400 ☐
 (c) Rs 430 ☐ (d) Rs 380 ☐
20. At what rate of simple interest a sum of money will double in 10 years?
 (a) 10% ☐ (b) 15% ☐
 (c) 20% ☐ (d) 8% ☐
21. A merchant starts a business with a capital of Rs 15000 and makes a profit of Rs 1800. Find his gain percent.
 (a) 10% ☐ (b) 15% ☐
 (c) 12% ☐ (d) 8% ☐
22. Find the amount on Rs 10000 for 2 years at 8% per annum, compounded annually
 (a) Rs 11024 ☐ (b) Rs 11664 ☐
 (c) Rs 12000 ☐ (d) Rs 12800 ☐
23. A and B can together complete a piece of work in 4 days. If A alone can complete the same work in 12 days, in how many days can B alone complete that work?
 (a) 6 days ☐ (b) 8 days ☐
 (c) 10 days ☐ (d) 9 days ☐
24. The sum of two numbers is 50 and their difference is 10. Find the bigger number
 (a) 20 ☐ (b) 30 ☐
 (c) 40 ☐ (d) 35 ☐

25. Find 25% of Rs 5100
 (a) Rs 1342 ☐ (b) Rs 1250 ☐
 (c) Rs 1275 ☐ (d) Rs 1350 ☐
26. If the perimeter of a rectangle field is 480 m and the ratio between the length and breadth is 5 : 3, find the area of the field.
 (a) 13500 sq m ☐ (b) 12400 sq m ☐
 (c) 14200 sq m ☐ (d) 15300 sq m ☐
27. Find the circumference of a circle, whose area is 24.64 metre square
 (a) 17.90 m ☐ (b) 17.70 m ☐
 (c) 17.60 m ☐ (d) 17.30 m ☐
28. How many ways can 5 friends stand in a line ?
 (a) 130 ☐ (b) 150 ☐
 (c) 110 ☐ (d) 120 ☐
29. X, Y and Z invest Rs 40000, Rs 60000 and Rs 80000, respectively, in a business. If the total profit is Rs 30000, what is Y's share?
 (a) Rs 10000 ☐ (b) Rs 13000 ☐
 (c) Rs 20000 ☐ (d) Rs 30000 ☐
30. A shopkeeper offers a 15% discount on a shirt marked at Rs 800. What is the selling price of the shirt
 (a) Rs 750 ☐ (b) Rs 650 ☐
 (c) Rs 680 ☐ (d) Rs 780 ☐
31. Find the perimeter of a square with side length 10 cm.
 (a) 40 cm ☐ (b) 100 cm ☐
 (c) 80 cm ☐ (d) 60 cm ☐
32. Find the volume of a cube with edge length 6 cm
 (a) 236 cm³ ☐ (b) 216 cm³ ☐
 (c) 218 cm³ ☐ (d) 246 cm³ ☐
33. If the cost of 5 kg of rice is Rs 150, what is the cost of 8 kg of rice ?
 (a) Rs 280 ☐ (b) Rs 220 ☐
 (c) Rs 240 ☐ (d) Rs 320 ☐
34. A speed of 18 km/hr is the same as
 (a) 5 m/sec ☐ (b) 3 m/sec ☐
 (c) 6 m/sec ☐ (d) 7 m/sec ☐
35. Find the greatest 4-digit number that can be formed using the digits 5, 0, 3 and 8 without repetition
 (a) 8503 ☐ (b) 8530 ☐
 (c) 5830 ☐ (d) 3850 ☐
36. Simplify : $48 \div 6 \times 2$
 (a) 4 ☐ (b) 14 ☐
 (c) 16 ☐ (d) 18 ☐
37. Simplify : $18 + 12 \times 3 - 8$
 (a) 56 ☐ (b) 25 ☐
 (c) 38 ☐ (d) 46 ☐

38. The sum of three numbers is 99. The first one is 3 times the second and the second is 2 times the third. Find the third number
 (a) 22 ☐ (b) 11 ☐
 (c) 15 ☐ (d) 10 ☐
39. Find the square root of 2209
 (a) 63 ☐ (b) 43 ☐
 (c) 47 ☐ (d) 57 ☐
40. A train travels from City A to City B at an average speed of 80 km/hr and returns at an average speed of 60 km/hr. What is the average speed for the entire trip?
 (a) 68.57 km/hr ☐ (b) 64.57 km/hr ☐
 (c) 66.42 km/hr ☐ (d) 72.43 km/hr ☐
41. A committee of 2 people is to be formed from a group of 4 people : A, B, C and D. How many different committees can be formed?
 (a) 5 ☐ (b) 6 ☐
 (c) 8 ☐ (d) 12 ☐
42. Additive Inverse of 3 is
 (a) $1/3$ ☐ (b) -3 ☐
 (c) 9 ☐ (d) 6 ☐
43. Find the cube root 13824
 (a) 34 ☐ (b) 42 ☐
 (c) 24 ☐ (d) 26 ☐
44. The average of the first five multiples of 13 is
 (a) 33 ☐ (b) 27 ☐
 (c) 23 ☐ (d) 39 ☐
45. Two vertical poles are separated by 20m at the ground and 25m at the top. If the shorter pole is 10m high, find the height of the other pole
 (a) 25 m ☐ (b) 21 m ☐
 (c) 30 m ☐ (d) 15 m ☐
46. Find the value of 50% of 10 % of 300
 (a) 10 ☐ (b) 15 ☐
 (c) 20 ☐ (d) 30 ☐
47. Average age of 6 numbers is 8. What number should be added to make the average 9 ?
 (a) 20 ☐ (b) 10 ☐
 (c) 15 ☐ (d) 12 ☐
48. Liana is three times as old as his son and six years age, the product of their ages was 288. Find the percent age of Liana
 (a) 38 ☐ (b) 46 ☐
 (c) 53 ☐ (d) 42 ☐
49. What is the perimeter of Rectangle with Length 20 km and Breath 12 km?
 (a) 64 km ☐ (b) 54 km ☐
 (c) 72 km ☐ (d) 36 km ☐
50. If 192 mangoes will be brought for Rs 15, how many can be bought for Rs 25?
 (a) 240 ☐ (b) 320 ☐
 (c) 430 ☐ (d) 380 ☐

PART-B
BASIC COMPUTER KNOWLEDGE
(50X2=100 Marks)

1. Where does your PC store your programs when the power is off?

(a) DRAM ☐	(b) Cache ☐
(c) ROM ☐	(d) Hard Disk Drive ☐
2. What is PCI (Peripheral Component Interconnect)?

(a) A type of monitor ☐	(b) A type of system bus ☐
(c) A kind of graphics ☐	(d) A modern standard ☐
3. Which company is not a microprocessor manufacturer?

(a) IBM ☐	(b) AMD (Advanced Micro Devices) ☐
(c) Microsoft ☐	(d) Intel ☐
4. What does a system bus do?

(a) allows the user to communicate with the computer with the computer	☐
(b) carries out instructions	☐
(c) connects various components within the computer	☐
(d) stores data and instructions	☐
5. Which company is not a PC manufacturer?

(a) Intel ☐	(b) Gateway ☐
(c) Dell ☐	(d) Compaq ☐
6. LAN stands for?

(a) Last Affordable Network ☐	(b) Leased Area Network ☐
(c) Latency Around Network ☐	(d) Local Area Network ☐
7. A wireless technology built in electronic gadgets used for exchanging data over short distance is

(a) USB ☐	(b) Bluetooth ☐
(c) Modern ☐	(d) Wi-fi ☐
8. Buying and selling the products over electronics systems like internet is called_____

(a) Online Shopping ☐	(b) Net Banking ☐
(c) E-Commerce ☐	(d) Digital Marketing ☐
9. What are the two types of monitors?

(a) CRT and DVD ☐	(b) CRT and LCD ☐
(c) DVD and VCD ☐	(d) LCD and DVD ☐
10. Basic Building Blocks for Digital Circuit is _____

(a) CMOS ☐	(b) Logic Gate ☐
(c) BIOS ☐	(d) DMOS ☐
11. _____ keys are present on the top row of the keyboard.

(a) Function ☐	(b) Type writer ☐
(c) Numeric ☐	(d) Navigation ☐
12. _____ computers are used in Banking, Railways, and Airlines.

(a) Mini computer ☐	(b) Micro computer ☐
(c) Super computer ☐	(d) Mainframe computer ☐

13. The first computer mouse was built by
 (a) Douglas Engelbart ☐ (b) William English ☐
 (c) Oaniel Coogher ☐ (d) Robert Zawacki ☐
14. Which of the following refers to the memory in your computer?
 (a) RAM ☐ (b) DSL ☐
 (c) CPU ☐ (d) LAN ☐
15. When you are working on a document on PC, where is the document temporarily stored?
 (a) RAM ☐ (b) ROM ☐
 (c) CPU ☐ (d) Flash Memory ☐
16. Information travels between components on the mother board through-
 (a) Flash memory ☐ (b) CMOS ☐
 (c) Bays ☐ (d) Buses ☐
17. How are data organised in a spreadsheet?
 (a) Lines and spaces ☐ (b) Layers and planes ☐
 (c) Height and width ☐ (d) Rows and columns ☐
18. Which of the following is true?
 (a) Byte is a single digit in a binary number ☐
 (b) Bit represents a grouping of digital numbers ☐
 (c) Eight-digit binary number is called a byte ☐
 (d) Eight-digit binary number is called a bit ☐
19. Transformation of input into output is performed by?
 (a) Peripherals ☐ (b) Memory ☐
 (c) CPU ☐ (d) Storage ☐
20. How many options does a binary choice offer?
 (a) None ☐ (b) One ☐
 (c) Two ☐ (d) It depends on the amount of memory in the computer ☐
21. _____ is collection of web pages and _____ is the very first page that we see on opening of a web-site
 (a) Home-page, Web-page ☐ (b) Web-site, Home-page ☐
 (c) Web-page, Home-page ☐ (d) Web-page, Web-site ☐
22. When the pointer is positioned on a _____ it is shaped like a hand.
 (a) Grammer error ☐ (b) Hyperlink ☐
 (c) Screen tip ☐ (d) Spelling error ☐
23. The _____ of a system includes the programs or instructions.
 (a) Hardware ☐ (b) Icon ☐
 (c) Information ☐ (d) Software ☐
24. 'www' stands for _____
 (a) World Wide Web ☐ (b) World Word Web ☐
 (c) World What Web ☐ (d) World Work Web ☐
25. What menu is selected to cut, copy and paste?
 (a) File ☐ (b) Tools ☐
 (c) Special ☐ (d) Edit ☐

26. You can use the tab key to
- | | | | |
|-------------------------------------|--------------------------|------------------------|--------------------------|
| (a) Move a cursor across the screen | ☐ | (b) Indent a paragraph | ☐ |
| (c) Move the cursor down the screen | ☐ | (d) Only A and B | ☐ |
27. The most important or powerful computer in a typical network is _____
- | | | | |
|--------------------|--------------------------|---------------------|--------------------------|
| (a) Desktop | ☐ | (b) Network client | ☐ |
| (c) Network server | ☐ | (d) Network station | ☐ |
28. Which of the following is an example of connectivity?
- | | | | |
|----------------|--------------------------|-----------------|--------------------------|
| (a) Internet | ☐ | (b) Floppy disk | ☐ |
| (c) Power cord | ☐ | (d) Data | ☐ |
29. The primary purpose of software is to turn data into _____
- | | | | |
|---------------|--------------------------|-----------------|--------------------------|
| (a) Web sites | ☐ | (b) Information | ☐ |
| (c) Programs | ☐ | (d) Objects | ☐ |
30. To what temporary area can you store text and other data, and later paste them to another location?
- | | | | |
|-------------------|--------------------------|-------------------|--------------------------|
| (a) The clipboard | ☐ | (b) ROM | ☐ |
| (c) CD-ROM | ☐ | (d) The hard disk | ☐ |
31. _____ is the science that attempts to produce machines that display the same type of intelligence that humans do.
- | | | | |
|------------------|--------------------------|----------------------------------|--------------------------|
| (a) Nano science | ☐ | (b) Nanotechnology | ☐ |
| (c) Simulation | ☐ | (d) Artificial Intelligence (AI) | ☐ |
32. Changing an existing documents is called _____ the document.
- | | | | |
|---------------|--------------------------|---------------|--------------------------|
| (a) Creating | ☐ | (b) Editing | ☐ |
| (c) Modifying | ☐ | (d) Adjusting | ☐ |
33. Computers use the _____ number, system to store data and perform calculations.
- | | | | |
|-------------|--------------------------|-----------------|--------------------------|
| (a) Decimal | ☐ | (b) Hexadecimal | ☐ |
| (c) Octal | ☐ | (d) Binary | ☐ |
34. Which of the following is the largest unit of storage?
- | | | | |
|-------------------|--------------------------|-------------------|--------------------------|
| (a) Gigabyte (GB) | ☐ | (b) Kilobyte (KB) | ☐ |
| (c) Megabyte (MB) | ☐ | (d) Terabyte (TB) | ☐ |
35. The _____ key will launch the start buttons.
- | | | | |
|-------------|--------------------------|--------------|--------------------------|
| (a) Esc | ☐ | (b) Shift | ☐ |
| (c) Windows | ☐ | (d) Shortcut | ☐ |
36. _____ is the process of finding errors in software code.
- | | | | |
|---------------|--------------------------|---------------|--------------------------|
| (a) Compiling | ☐ | (b) Testing | ☐ |
| (c) Running | ☐ | (d) Debugging | ☐ |
37. To move to the beginning of a line of text, press the _____ key.
- | | | | |
|------------|--------------------------|-----------|--------------------------|
| (a) Home | ☐ | (b) A | ☐ |
| (c) PageUp | ☐ | (d) Enter | ☐ |
38. When sending an e-mail, the _____ line describes the contents of the message.
- | | | | |
|--------------|--------------------------|-------------|--------------------------|
| (a) To | ☐ | (b) Subject | ☐ |
| (c) Contents | ☐ | (d) CC | ☐ |

39. The _____ tells the computer how use its components.
- | | | | |
|----------------------|--------------------------|-------------------------|--------------------------|
| (a) Utility | ☐ | (b) Network | ☐ |
| (c) Operating System | ☐ | (d) Application program | ☐ |
40. Two or more computers connected to each other of sharing information form a _____.
- | | | | |
|-------------|--------------------------|------------|--------------------------|
| (a) Server | ☐ | (b) Router | ☐ |
| (c) Network | ☐ | (d) Tunnel | ☐ |
41. Computers that are portable and convenient for users who travel are known as _____.
- | | | | |
|---------------------|--------------------------|------------------|--------------------------|
| (a) Super Computers | ☐ | (b) Laptops | ☐ |
| (c) Mini Computers | ☐ | (d) File servers | ☐ |
42. Office LANs that are spreads geographically apart on a large scale can be connected using a corporate _____.
- | | | | |
|---------|--------------------------|---------|--------------------------|
| (a) CAN | ☐ | (b) LAN | ☐ |
| (c) DAN | ☐ | (d) WAN | ☐ |
43. The most frequently used instructions of a computer program are likely to be fetched from:
- | | | | |
|-------------------|--------------------------|------------------|--------------------------|
| (a) The hard disk | ☐ | (b) Cache memory | ☐ |
| (c) RAM | ☐ | (d) Registers | ☐ |
44. Personal logs or journal entries posted on the Web are known as_____.
- | | | | |
|---------------|--------------------------|-------------------------|--------------------------|
| (a) Listservs | ☐ | (b) Webcasts | ☐ |
| (c) Blogs | ☐ | (d) Subject Directories | ☐ |
45. Which of the following is NOT a type of broad band internet connection?
- | | | | |
|-------------|--------------------------|---------------|--------------------------|
| (a) Cable | ☐ | (b) DSL | ☐ |
| (c) Dial-up | ☐ | (d) Satellite | ☐ |
46. Linux is a (n) _____ Operating system
- | | | | |
|-----------------|--------------------------|---------------|--------------------------|
| (a) Open-source | ☐ | (b) Microsoft | ☐ |
| (c) Windows | ☐ | (d) Mac | ☐ |
47. For move to the bottom of a document, press _____
- | | | | |
|----------------------|--------------------------|--------------------|--------------------------|
| (a) Auto summarize | ☐ | (b) End Key | ☐ |
| (c) Ctrl + Home Key` | ☐ | (d) Ctrl + End Key | ☐ |
48. By default, your documents print in _____mode.
- | | | | |
|----------------|--------------------------|-------------------|--------------------------|
| (a) Page setup | ☐ | (b) Portrait | ☐ |
| (c) Landscape | ☐ | (d) Print preview | ☐ |
49. A wireless network uses _____ waves to transmit signals.
- | | | | |
|----------------|--------------------------|------------|--------------------------|
| (a) Mechanical | ☐ | (b) Radio | ☐ |
| (c) Sound | ☐ | (d) Switch | ☐ |
50. Which of the following is not a characteristic of a computer?
- | | | | |
|------------------|--------------------------|----------------|--------------------------|
| (a) Intelligence | ☐ | (b) Speed | ☐ |
| (c) Versatility | ☐ | (d) Automation | ☐ |

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