

GOVERNMENT OF MIZORAM

EXAMINATION FOR RECRUITMENT TO THE POST OF SA 2024

# PAPER II

SIMPLE ARITHMETIC

FULL MARKS : 100 TIME ALLOWED : 3 HOURS

### Candidate tana hriat tur

1. A dik zawnah " $\sqrt{}$ " thai tur.

2. Thlan tur zingah hian answer dik pakhat chiah a awm

3. Question tinin mark hnih zel a pu.

4. A kawmah hian i Roll No. chiah ziak ang che.

## Signature of Invigilator \_\_\_\_\_

CODE NO.

(LAD Office dah khah tur)

Chhanna endiktu signature

No. of correct answers	Marks carried by one question	Marks Obtained
	2	

## Signature of Invigilator

**CODE NO.** (LAD Office dah khah tur)

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LOCAL ADMINISTRATION DEPARTMENT

EXAMINATION FOR RECRUITMENT TO THE POST OF SA 2024

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1. Which of the following is a prime number?

A) 189	( )
B) 346	(
C) 101	( )
D) 672	( )

2. What is the sum of the first 50 natural numbers?

A) cannot be computed	(	)
B) 1575	(	)
C) 725	(	)
D) 1275	(	)

3. If a number is divided by 133, the remainder is 21. If this number is divided by 19, then the remainder will be

A) 1	(	)
B) 2	(	)
C) 5	(	)
D) 9	(	)

4. J. Lalrosanga's monthly income is threefourth of Lalsangliana's income. Lalsangliana's income is ₹ 38000. What is J.

Lalrosanga's annual income?

(	)
(	)
(	)
(	)
	( ( ( (

5. What is the difference between the sum of the cubes and that of the squares of first ten natural numbers?

A) 1080	(	)
B) 2640	(	)
C) 2620	(	)
D) 1980	(	)

6. Express  $\frac{7}{50}$  as decimal number.

A) 1.4	(	)
B) 0.14	(	)
C) 14	(	)
D) 0.014	(	)

7. What should come in place of the question mark in the following number series?

6, 4, 5, 11, 39, ?

11, 57, 1		
A) 169	(	)
B) 179	(	)
C) 189	(	)
D) 209	(	)

8. Simplify  $3[-2 - {4 + 2(6 \times 2 \div 4 + \overline{7 - 3})}]$ A) –60 B) + 60 C) + 30 ) D) -30 9. Simplify  $\frac{\frac{2}{5} + \frac{4}{5}of + \frac{1}{2}}{\frac{2}{3} - \frac{2}{3} \div \frac{5}{3}}$ A) 4 ) B) 3 ) C) 7 D) 11 10. Simplify  $\sqrt{625} \times 2 + \sqrt{169} \div 39 \times 27$ A) 49 B) 68 ) C) 72 ) D) 69 11. What is the value of 3√157464 A) 74 B) 44 C) 54 D) 66 12. Which of the following is a perfect square? A) 6241 B) 5326 ) C) 3248 ) D) 3363 13. What is the least number to be multiplied with 294 to make it a perfect square? A) 4 B) 6 ) C) 18 ) D) 21 14. Calculate the average of the cubes of first 9 natural numbers. A) 125 B) 55 ) C) 75

D) 225

15. The average age of 25 boys in a class decreases by 6 months when a new boy replaces a 20-year-old boy. Determine the age of the new boy.

A) 7.5 years	(	)	
B) 8.5 years	(	)	
C) 6.5 years	(	)	
D) Cannot be computed	(	)	

16. What will be the average of

3, 4, 5, 51, 52, 53?	
A) 26	( )
B) 27	( )
C) 28	(
D) 29	( )

17. A computer set with a marked price of  $\gtrless$  32,000 was sold for  $\gtrless$  28,000 during a Christmas sale. Calculate the discount rate offered.

A) 6.5%	(	)
B) 10.2%	(	)
C) 12.5%	(	)
D) 15%	(	)

18. The single discount equivalent to the discount series of 20%, 10% and 5% is

A) 35%	(	)
B) 31.6%	(	)
C) 0.32%	(	)
D) None of these	(	)

19. The marked price of an article is 50% higher than its cost price. If a 10% discount is offered on the marked price, what will be the profit percentage?

A) 40%	(	)
B) 45%	(	)
C) 30%	(	)
D) 35%	(	)

20. If the price of an LPG cylinder is increased by 12% today, by what per cent should it be reduced tomorrow to bring it to the previous level?

A) 12%	(	)

B)  $10\frac{5}{7}\%$  ( )

C) 
$$12\frac{5}{7}\%$$
 ( )

D)  $8\frac{5}{7}$  % ( )

21. What percentage of one quintal is 600 grams?

A) 0.006%	(	)
B) 0.06%	(	)
C) 0.6%	(	)
D) 6%	(	)

22. Sangzuala spends 60% of his income on household expenses, 20% of the remaining amount on personal necessities, and 20% of what is left on savings. If his monthly savings amount to  $\gtrless$  1,600, determine his total income.

A) ₹ 25000	(	)
B) ₹ 28000	(	)
C) ₹ 32000	(	)
D) ₹ 34000	(	)

23. An ipad is sold for  $\gtrless$  60000 thereby making a profit of 20% on the cost price. Determine the cost price.

A) ₹ 72000	(	)
B) ₹ 48000	(	)
C) ₹ 50000	(	)
D) None of these	(	)

24. Siama sold a mobile for  $\gtrless$  8,800, gaining a 10% profit. To achieve a 15% profit, at what price should he have sold it?

A) ₹ 7800	(	)
B) ₹ 9200	(	)
C) ₹ 9800	(	)
D) ₹ 10120	(	)

25. A man gains 10% by selling an article for a certain price. If he sells it at double the price, then the profit made is

A) 20%	(	)
B) 40%	(	)
C) 100%	(	)
D) 120%	(	)

26. Reduce $4\frac{2}{3}: 3\frac{1}{3}$	to the simplest form.
A) 7 : 4	( )
B) 5 : 3	(
C) 7 : 5	( )
D) 8 : 5	( )

27. A dozen apples costs ₹ 756. What will be the cost of 864 apples?

A) ₹ 54432	(	)
B) ₹ 137142	(	)
C) ₹ 10500	(	)
D) None of these	(	)

28. Divide ₹ 96,000 among A, B, and C such that A's share is  $3/4^{\text{th}}$  of B's share, and the ratio of B's share to C's share is 4:5. What is the amount of C's share?

A) ₹ 24000	(	)
B) ₹ 32000	(	)
C) ₹ 40000	(	)
D) None of these	(	)

29. A and B invest in a partnership in the ratio of 2:3. After one year, the total profit is ₹ 30,000. How much will A receive as his share?

A) ₹ 15000	(	)
B) ₹ 18000	(	)
C) ₹ 10000	(	)
D) ₹ 12000	(	)

30. Khuma starts a business with  $\gtrless$  20000 and Mawia joins after 3 months with  $\gtrless$  80000. Find the ratio of their profit at the end of the year.

A) 2 : 3	( )	
B) 1 : 3	( )	
C) 3 : 5	( )	
D) 2 : 5	( )	

31. *A* and *B* started a joint business. *A*'s investment was thrice the investment of *B* and the period of his investment was twice the period of investment of *B*. If *B* got  $\gtrless$  6000 as profit, then what will be the total profit?

A) ₹ 58000	(	)
B) ₹ 35000	(	)
C) ₹ 45000	(	)
D) ₹ 42000	(	)

32. Mawia and Rama can do a piece of work in 12 days and Mawia alone can do it in 18 days. In how many days can Rama alone do it?

A) 32 days	(	)
B) 24 days	(	)
C) 36 days	(	)
D) None of these	(	)

33. Zuala can do a piece of work in 10 days and Sanga can do the same work in 12 days. How long will they take to finish the work, if both work together?

A) $5\frac{2}{3}$ days (	)	)
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B) 
$$5\frac{5}{11}$$
 days ( )

C) 
$$7\frac{5}{11}$$
 days ( )

D) None of these ( )

34. If 6 men or 8 women can reap a filed in 86 days, how long will 14 men and 10 women take to reap it?

A) 18 days	(	)
B) 36 days	(	)
C) 24 days	(	)
D) None of these	(	)

35. Express a speed of 30 m/s in km/h.

A) 108 km/h	(	)
B) 120 km/h	(	)
C) 110 km/h	(	)
D) None of these	(	)

36. Muanpuia drives his car at two different speeds to his office, resulting in different travel times. At a speed of 30 km/h, he arrives 8 minutes late, while at 45 km/h, he arrives 2 minutes early. Determine the distance between Muanpuia's home and his office.

A) 15 km	(	)
B) 20 km	(	)
C) 12 km	(	)
D) None of these	(	)

37. A man covers half of his journey at 6 km/h and the remaining half at 3 km/h. Find his average speed.

A) 4.5 km/h	(	)
B) 4 km/h	(	)
C) 3.8 km/h	(	)
D) None of these	(	)

38. Zonuni borrowed ₹ 50,000 from a moneylender. After 4 years, she repaid a total of ₹ 61,250. Calculate the rate of simple interest

A) 7.5%	(	)
B) 6.2%	(	)
C) 5.6%	(	)
D) None of these	(	)

39. A sum of money doubles itself in 8 years when invested at a certain rate of simple interest. How long will it take for the same amount to quadruple (4 times) at the same rate of interest?

A) 36 years	(	)
B) 24 years	(	)
C) 12 years	(	)
D) None of these	(	)

40. Find the compound interest on ₹ 8000 for 2 years compounded annually at 6%.

A) ₹ 988.80	2	(	)
B) ₹ 899.9		(	)
C) ₹ 712.8		(	)
D) None of these		(	)

41. Determine the area of a triangle with a base of 10 cm and a height of 12 cm.

	0		
A) $120 \text{ cm}^2$		(	)
B) $1200 \text{ cm}^2$		(	)
C) 90 $cm^2$		(	)
D) $60 \text{ cm}^2$		(	)

42. The length and breadth of a rectangular field are in the ratio 5:4, and its area is 720 square metres Calculate the cost of planting grass over the entire area at a rate of  $\gtrless$  12 per square meter.

A) ₹ 7250	(	)
B) ₹ 9680	(	)
C) ₹ 8640	(	)
D) None of these	(	)

43. Find the radius of a circle whose circumference is 396 cm.

A) 63 cm	(	)
B) 198 cm	(	)
C) 99 cm	(	)
D) None of these	(	)

44. The volume of a water tank is  $4320 \text{ m}^3$ , with a length of 20 m and a breadth of 18 m. Calculate the depth of the tank.

A) 15 m	(	)
B) 12 m	(	)
C) 10 m	(	)
D) 9 m	(	)

45. The diameter and height of a cylindrical water tank are 3.5 m and 3 m, respectively. Calculate the volume of water it can hold.

A) 27,580 litres	(	)
B) 31,250 litres	(	)
C) 28,875 litres	(	)
D) None of these	(	)

46. In how many different ways can the letters BAWIHTEI be arranged?

e		
A) 18030	(	)
B) 20160	(	)
C) 34680	(	)
D) None of these	(	)

47. Find the number of ways in which 6 different beads can be arranged to form a necklace?

A) 60	(	)
B) 120	(	)
C) 180	(	)
D) None of these	(	)

Directions Q 48-50: Study the following graph and the table and answer questions nos. 48 - 50



Data of different states regarding population of states in the year 1998

Total population of the given States = 3276000.

			Sex and Literacy wise Popula	ation Ratio
States	Sex		Literacy	
	М	F	Literate	Illiterate
A.P	5	3	2	7
M.P	3	1	1	4
Delhi	2	3	2	1
Goa	3	5	3	2
Bihar	3	4	4	1
U.P.	3	2	7	2
T.N.	3	4	9	4

48. What will be the percentage of the male population in U.P to the total population of all the given states?

A) 12%	(	)
B) 9%	(	)
C) 7.5%	(	)
D) None of these	(	)

49. How many literate persons are there in Delhi?

A) 87360	(	)
B) 158730	(	)
C) 174720	(	)
D) None of these	(	)

50. What is the ratio of the number of females in T.N. to the number of females in Goa?

A) 24 : 35	(	)
B) 27 : 39	(	)
C) 17 : 28	(	)
D) None of these	(	)