

MIZORAM LEGISLATIVE ASSEMBLY
COMPETITIVE EXAMINATION FOR DIRECT RECRUITMENT FOR
THE POST OF UPPER DIVISION CLERK - MAY, 2023

PAPER - II
(ARITHMETICS)

Time : 3 hours
Full Marks : 50

The figures in the margin indicates full marks for the questions.

1. Choose the correct answer : (3x1=3)
 - (a). 15% of 20 is -
(i) 2 (ii) 3 (iii) 4 (iv) 5
 - (b) The value of $7x - 9 = 16$ is -
(i) 25 (ii) $\frac{10}{7}$ (iii) $\frac{25}{7}$ (iv) 7
 - (c) If $9:23::36:x$, then the value of x is -
(i) 86 (ii) 92 (iii) 97 (iv) 90
2. Alfred buys an old mobile phone for Rs. 4700 and spends Rs. 800 on its repair. If he sells the phone for Rs. 5800. What is his gain percent ? (3)
3. Factorise the following expressions : (2x2=4)
 - (a) $a^2 + 8a + 16$
 - (b) $4p^2 - 9q^2$
4. A contractor estimates that 3 persons could require a building is 4 days. Then he uses 4 persons instead of three, how long should they take to complete the jobs? (3)
5. Solve for x and y : (4)
 $2x + 3y = 13$
 $5x - 3y = 3$
6. Mawia takes 8 hours to walk a certain place and riding back. However, he could have gains two hours if he had covered both ways riding. How long would he take both ways? (3)
7. Simplify : $(4\sqrt{3} - 6\sqrt{5}) + (\sqrt{3} + \sqrt{5})$ (3)
8. An article cost Rs. 10,000. It is purchased in two annual instalments of Rs. 6,000 each. Then find the total interest charged. (3)

contd.....2/-



9. A train running at a speed of 90 km/hr passes a pole on the platform in 18 seconds. What is the length of the train? (3)
10. A and B together can do a piece of work 'n' days while B alone can finish it in 'm' days. What is the work done by A in 1 day? (3)
11. Express $\frac{x^2 - 4}{x^3 - 8}$ in the simplest form. (3)
12. What is 80 percent of 45? (3)
13. In an exam Sangi secured 332 marks. If she secured 83% marks. Find the maximum marks? (4)
14. A shopkeeper takes 10% profit on his goods. He lost 20% of his goods during a theft. What is his loss percent? (4)
15. If Rs. 12 is divided between A and B such that the product of their shares is Rs. 32. Find the share of A and B? (4)

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