



SSC CGL & CHSL 2024



DAY-3

आरंभ बैच

MATHS

50 TOP SIMPLIFICATION

LIVE 06:00 PM

PART-2

2024 के सपने होंगे पूरे





Q1. If $x = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{2}}}}$ then, the value of $2x + \frac{7}{4}$

- (1) 3
- (2) 4
- (3) 5
- (4) 6



Q2.Simplify : $\frac{19}{43} \div \frac{1}{2 + \frac{1}{3 + \frac{1}{1 + \frac{1}{4}}}}$

(1) 10

(2) 19/4

(3) 43/1

(4) 38/4



Q3.Simplify : $1 + \frac{1}{1 + \frac{2}{2 + \frac{3}{1 + \frac{4}{5}}}}$

- (1) $1 \frac{11}{17}$
- (2) $1 \frac{5}{7}$
- (3) $1 \frac{6}{17}$
- (4) $1 \frac{21}{17}$



Q4.Simplify : $8\frac{1}{2} - \left[3\frac{1}{4} \div \left\{ 1\frac{1}{4} - \frac{1}{2} \left(1\frac{1}{2} - \frac{1}{3} - \frac{1}{6} \right) \right\} \right]$

(1) 4

(1/2)

(2) 4

(1/6)

(3) 9



Q5. $\frac{9}{20} - \left[\frac{1}{5} + \left\{ \frac{1}{4} + \left(\frac{5}{6} - \frac{1}{3} + \frac{1}{2} \right) \right\} \right]$

(1) 0

(2) 1

(3) 9/20

(4) 10/9



Q6. When simplified, the expression $(110)^{\frac{1}{2}} \times (0.001)^{\frac{1}{3}} -$

$$(0.0016)^{\frac{1}{4}} \times 3^0 + \left(\frac{5}{4}\right)^{-1}$$

(1) 1.6

(2) 0.8

(3) 1.0

(4) 0



$$\frac{3\frac{1}{4} - \frac{4}{5} \text{ of } \frac{5}{6}}{4\frac{1}{3} + \frac{1}{5} - \left(\frac{3}{10} + 21\frac{1}{5}\right)} - \left(1\frac{2}{3} \text{ or } 1\frac{1}{2}\right) \text{ is equal to-}$$

- (1) 9
- (2) 11 $\left(\frac{1}{2}\right)$
- (3) 13
- (4) 15 $\left(\frac{1}{2}\right)$



Q7.
$$\frac{0.1 \times 0.1 \times 0.1 + 0.2 \times 0.2 \times 0.2 + 0.3 \times 0.3 \times 0.3 - 3 \times 0.1 \times 0.2 \times 0.3}{0.1 \times 0.1 + 0.2 \times 0.2 + 0.3 \times 0.3 - 0.1 \times 0.2 - 0.2 \times 0.3 - 0.3 \times 0.1}$$

Is -

(1) 0.00

(2) 0.6

(3) 0

(4) 0.2



Q8.If * represent a number , then the value of * in

$$5^{\frac{3}{*}} \times 3^{\frac{1}{2}} = 19$$

is:

यदि * किसी संख्या का प्रतिनिधित्व करते हैं, तो में $5^{\frac{3}{*}} \times 3^{\frac{1}{2}} =$

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* का मान

(1) 7

(2) 4

(3) 6

(4) 2



Q9. The value of $\frac{(3.2)^2 - 0.008}{(3.2)^2 + 0.64 + 0.04}$ is.

- (1) 0
- (2) 2.994
- (3) 3.208
- (4) 3



Q10. The value of

$$\sqrt{5 + \sqrt{11 + \sqrt{19 + \sqrt{29 + \sqrt{49}}}}}$$

(1) 3

(2) 9

(3) 7

(4) 5



Q11. Find the value of $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$

- (1) -16
- (2) ± 16
- (3) 16
- (4) 16.2



Q12. $\sqrt{8 + \sqrt{57 + \sqrt{38 + \sqrt{108 + \sqrt{169}}}}} = ?$

- (1) 4
- (2) 6
- (3) 8
- (4) 10



Q13. The smallest 4- digit number, which is perfect square, is

सबसे छोटी 4 अंकों की संख्या है, जो एकदम सही वर्ग है,

(1) 1009

(2) 1016

(3) 1024

(4) 1025



Q14. The smallest positive integer, when multiplied by 392, the product is a perfect square, is
सबसे छोटी सकारात्मक पूर्णांक, जब 392 से गुणा हो, उत्पाद एक परिपूर्ण वर्ग है,

- (1) 6
- (2) 5
- (3) 3
- (4) 2



Q15. Which smallest number must be added to 2203 so that we get a perfect square?

कौन सी सबसे छोटी संख्या 2203 करने के लिए जोड़ा जाना चाहिए ताकि हम एक परिपूर्ण वर्ग मिलता है?

(1) 1

(2) 6

(3) 3

(4) 8



Q16. $12\% \text{ of } 450 + ?\% \text{ of } 200 = 83$

(1) 13.5

(2) 16

(3) 14.5

(4) NOT



Q17. $92 \times 576 \div 2\sqrt{1296} = (?)^3 + \sqrt{49}$

(1) 3

(2) $(9)^2$

(3) 9

(4) NOT



Q18. $3\frac{1}{4} + 2\frac{1}{2} - 1\frac{5}{6} = \frac{(?)^2}{10} + 1\frac{5}{12}$

(1) 25

(2) 625

(3) 15

(4) NOT



Q19. $(4 \times 4)^3 \div (512 \div 8)^4 \times (32 \times 8)^4 = (2 \times 2)^{?+4}$

(1) 8

(2) 6

(3) 12

(4) NOT



Q20. $348 \div 29 \times 15 + 156 = (?)^3 + 120$

(1) 12

(2) 6

(3) 36

(4) NOT



Q21. $8^{11} \times 4^{2.7} \times 2^{3.3} = 2^?$

(1) 7.1

(2) 41.7

(3) 0.5

(4) NOT



Q22. $12.5 \times 14 \div 8.75 + 12 = 20 + ?$

(1) 13

(2) 14

(3) 16

(4) not



Q23. $(?)^{1/4} / 8 = 48 / (?)^{3/4}$

(1)344

(2)364

(3)342

(4)not



√Q24. $((444) \div 37 + 15 + 11 * (?)) = 7$

(1)4

(2)3

(3)2

(4)not



Q25

$$\frac{1}{2} \div \frac{1}{2} \text{ of } \frac{1}{2}$$

$$\frac{1}{2} + \frac{1}{2} \text{ of } \frac{1}{2}$$

(1) 1

(2) $1\frac{1}{3}$

(3) $2\frac{2}{3}$

(4) 3



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If $\frac{a}{b} = \frac{4}{3}$, then the value of $\frac{6a+4b}{6a-5b}$ is :

यदि $\frac{a}{b} = \frac{4}{3}$, तो $\frac{6a+4b}{6a-5b}$ का मान है:

(1) 4

(2) 1

(3) $1\frac{1}{7}$

(4) 2



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If $\frac{a}{b} = \frac{4}{5}$, and $\frac{b}{c} = \frac{15}{16}$, then $\frac{c^2 - a^2}{c^2 + a^2}$ is :

(1) $\frac{1}{7}$

(2) $\frac{7}{25}$

(3) $\frac{3}{4}$

(4) None of these



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If $2 = x + \frac{1}{1 + \frac{1}{3 + \frac{1}{4}}}$, then the value of x is:

यदि $2 = x + \frac{1}{1 + \frac{1}{3 + \frac{1}{4}}}$, तो x का मान है:

(1) 5

(2) $\frac{13}{17}$

(3) $\frac{18}{17}$

(4) $\frac{21}{17}$



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$$\frac{3}{1^2 \cdot 2^2} + \frac{5}{2^2 \cdot 3^2} + \frac{7}{3^2 \cdot 4^2} + \frac{9}{4^2 \cdot 5^2} + \frac{11}{5^2 \cdot 6^2} + \frac{13}{6^2 \cdot 7^2} + \dots + \frac{19}{9^2 \cdot 10^2}$$

is :

- (1) $\frac{1}{100}$
- (2) $\frac{99}{100}$
- (3) 1
- (4) $\frac{101}{100}$