UNIT 2 QUANTITATIVE ABILITY IV

T5: Simplification

1. 784 ÷ 14 + 598 ÷ 13 + ? = 99% of 2500

2. 221 ÷ 13 × √576 + 102 = ?

Soln:

$\frac{784}{14}$ + $\frac{598}{13}$ + ? = 99 × 2500 /100

Soln:

221 ÷ 13 × √576 + 100

56 + 46 + ? = 2475

? = 17 × 24 + 100

? = 2475 – 102 = 2373

? = 408 + 100 ? = 508

Hence, option B is correct.

Hence, option D is correct.

$18\dfrac{1}{3}$ of $18 + 19\dfrac{1}{4}$ of $28 = 5.5 \times$?

$\dfrac{55}{3}$ of $18 + \dfrac{77}{4}$ of $28 = 5.5 \times$?

$55 \times 6 + 77 \times 7 = 5.5 \times$?
$11(30 + 49) = 5.5 \times$?
? $= 79 \times 2 = 158$
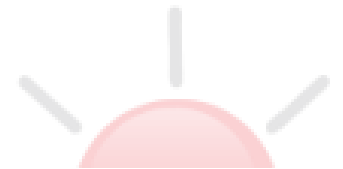Hence, option C is correct.

$3^{-2} + 22\dfrac{2}{9}$ % of $364 =$?

$\dfrac{1}{9} + \dfrac{200}{9}$ % of $364 =$?

$\dfrac{1}{9} + \dfrac{728}{9} =$?

$\dfrac{729}{9} = 81 =$?

? $= 81$

Hence, option D is correct.

$9 \times 9 \times 9 + 6 \times 6 \times 6 = (1.5)^? \times 35 \times 8$

$729 + 216 = (1.5)^? \times 35 \times 8$

$945 = (1.5)^? \times 35 \times 8$

$\left(\dfrac{27}{8}\right) = \left(\dfrac{3}{2}\right)^?$

$\left(\dfrac{3}{2}\right)^3 = \left(\dfrac{3}{2}\right)^?$

Hence, option C is correct.

$15 \times 15 \times 15 + 45^2 = 3^2 \times ?$

$9 \times 25 (15 + 9) = 9 \times ?$

$? = 25 \times 24 = 600$

Hence, option C is correct.

$\Rightarrow \dfrac{(X-Y)^4 - 18}{7} \times \dfrac{9XY}{10Y^2 - 6XY} = ?$

$\Rightarrow \dfrac{81 - 18}{7} \times \dfrac{9 \times 10}{10 \times 7 - 6 \times 10}$

$\Rightarrow \dfrac{63}{7} \times \dfrac{9 \times 10}{10 \times 7 - 6 \times 10}$

$\Rightarrow 9 \times \dfrac{90}{10}$

$\Rightarrow 81$

$(6561 \times 117) \div 108 \times 36 = 3^{?+4} \div 216^{1/3} \times 39$

$(6561 \times 117) \div 108 \times 6 = 3^{?+4} \div 6 \times 39$

$729 \times 117 \div 12 \times 6 \times 6 \div 39 = 3^{?+4}$

$729 \times 3 \times 3 = 3^{?+4}$

$3^{6+2} = 3^{?+4}$

$8 = ? + 4$

$? = 4$

Hence, option C is correct.

$2\sqrt{3} \times 3\sqrt{8} \times 2\sqrt{27} \times 2\sqrt{2} = 2^4 \times ?$

$2^4 \times ? = 2\sqrt{3} \times 6\sqrt{2} \times 6\sqrt{3} \times 2\sqrt{2}$

$? \times 2^4 = 2 \times 6 \times 6 \times 2 \times 3 \times 2$

$? = 3 \times 3 \times 3 \times 2 = 54$

Hence, option B is correct.