Approximation Questions for Bank Clerk Pre Exams.

Approximation Quiz 15

Directions: What approximate value should come in the place of question mark (?) in the following questions?

1. $(127.998 \times 10.012 \times 6400^{1/2}) \div 100 = (?)^2$

A. 34   B. 49   C. 32   D. 28   E. 44

2. 33% of 810 − 654% of 27 = ?

A. 85   B. 90   C. 95   D. 100   E. 80

3. $11.07 \times 81 + 132.04 = ?^2$

A. 32   B. 42   C. 22   D. 12   E. 52

4. $16.97 \times \sqrt{1088.9} + 187 = ?^2 + 739$

A. 4   B. 9   C. 3   D. 10   E. 12

5. $[(28 + 48) \times (78 + 58)] - (18)^2 = ?$

A. 10012   B. 10112   C. 10002   D. 10014   E. 100215

6. $7.69\% \text{ of } 1755 = ?^2 \div \sqrt{255} \times 3.9 - \sqrt[3]{729}$

A. 12   B. 36   C. 18   D. 24   E. 28

7. $(11.98)^2 + 285.96 + (13.03)^2 = ? + 4004 \div 14$

A. 26   B. 126   C. 236   D. 336   E. 313

8. $11.25\% \text{ of } 290 + 43.9\% \text{ of } 160 = ?^{1/2} \% \text{ of } 300$

A. 1156   B. 1296   C. 1225   D. 1440   E. 1180

9. $(2445.98 - 608.06 + 208.18) = ?^2 \div 144 + 890$

A. 250   B. 350   C. 300   D. 400   E. 500

10. $414 + \sqrt{324} \div 24 \times 456 = ?^2 - \sqrt{7225}$

A. 20   B. 50   C. 40   D. 30   E. 60

Correct Answers:

1	2	3	4	5	6	7	8	9	10
C	B	A	C	A	D	E	A	D	D

Explanations:

1. $(?)^2 = (127.998 \times 10.012 \times 6400^{1/2}) \div 100$

$\approx \dfrac{(128 \times 10\,) \times 6400^{1/2}}{100} = \dfrac{128 \times 10 \times 80}{100}$

$= 128 \times 8 = 1024$

$\therefore ? \approx 1024^{1/2} = 32$

Hence option C is correct

2. 33% of 810 – 654% of 27 = ?

$26730 \div 100 - 17658 \div 100 = ?$

267.3 – 176.58 = ?

267 – 177 = ?

? = 90

Hence, option B is correct.

3. $11.07 \times 81 + 132.04 = ?^2$

$11 \times 81 + 132 = ?^2$

$?^2 = 891 + 132$

$?^2 = 1023$

? = 31.98 ≈ 32

Hence, option A is correct.

4. $16.97 \times \sqrt{1088.9} + 187 = ?^2 + 739$

$17 \times \sqrt{1089} + 187 = ?^2 + 739$

$17 \times 33 + 187 = ?^2 + 739$

$561 + 187 = ?^2 + 739$

$748 - 739 = ?^2$

$?^2 = 9$

? = 3

Hence, option C is correct.

5. Follow BODMAS rule to solve this question, as per the order given below,

Step - 1 - 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,

Step - 2 - Any mathematical 'Of' or 'Exponent' must be solved next,

Step - 3 - Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,

Step - 4 - Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

$[(28 + 48) \times (78 + 58)] - (18)^2 = ?$

$\Rightarrow 76 \times 136 - 18^2 = ?$

$\Rightarrow 10336 - 324 = ?$

$\Rightarrow ? = 10012$

Hence option A is correct.

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6. $7.69\% \text{ of } 1755 = ?^2 \div \sqrt{255} \times 3.9 - \sqrt[3]{729}$

$\approx 1755 \times \dfrac{1}{13} = ?^2 \div \sqrt{256} \times 4 - 9$

$135 = ?^2 \div 16 \times 4 - 9$

$135 + 9 = ?^2 \div 4$

$144 \times 4 = ?^2$

$? = 12 \times 2 = 24$

Hence, option D is correct.

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7. $(11.98)^2 + 285.96 + (13.03)^2 = ? + 4004 \div 14$

$\approx 12^2 + 286 + 13^2 = ? + 286$

$144 + 286 + 169 = ? + 286$

$? = 144 + 169 = 313$

Hence, option E is correct.

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8. $11.25\% \text{ of } 290 + 43.9\% \text{ of } 160 = ?^{1/2}\% \text{ of } 300$

$290 \times 11\% + 160 \times 44\% = ?^{1/2} \times 3$

$31.9 + 70.4 = ?^{1/2} \times 3$

$32 + 70 = ?^{1/2} \times 3$

$?^{1/2} \times 3 = 102$

$?^{1/2} = 34$

$? = 1156$

Hence, option A is correct.

9. $(2445.98 - 608.06 + 208.18) = ?^2 \div 144 + 890$

$\approx (2446 - 608 + 208) = ?^2 \div 144 + 890$

$(2654 - 608) = ?^2 \div 144 + 890$

$2046 - 890 = ?^2 \div 144$

$1156 \times 144 = ?^2$

$? = 34 \times 12 = 408 \approx 400$

Hence, option D is correct.

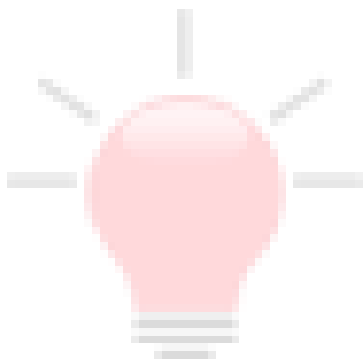**10.** $414 + \sqrt{324} \div 24 \times 456 = ?^2 - \sqrt{7225}$

$414 + 18 \times 19 = ?^2 - 85$

$414 + 342 + 85 = ?^2$

$?^2 = 841$

$? = 29 \approx 30$

Hence, option D is correct.