Approximation Questions for SBI PO Pre, IBPS PO Pre , SBI Clerk Mains and IBPS Clerk Mains Exams.

Approximation Quiz 36

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

1. $(251.87 \times 8 \times 6.99) \div 25 = 11.986 + ?$

A. 448   B. 586   C. 568   D. 548   E. 652

2. 39.99% of $\left(256.039 - \dfrac{62}{2}\right) \times 38.23 = ?$

A. 5420   B. 4540   C. 3420   D. 2860   E. 3680

3. $(37.12)^2 + (43.88)^2 = (?^2 - \sqrt{2600}) \times \sqrt{1297}$

A. 6   B. 8   C. 10   D. 12   E. 14

4. $7241 \times 2\dfrac{4}{6} + 412 \div ? = 19377$

A. 3   B. 6   C. 9   D. 12   E. 18

5. $(?)^2 + (125)^2 = (250.13)^2 - (95.12)^2 - 5680$

A. 160   B. 165   C. 170   D. 179   E. 190

6. $1.2345 + 12.345 + 123.45 + 1234.5 + 12345 = ?$

A.. 13525   B. 14485   C. 13715   D. 14245   E. 13955

7. $54321 - 5432.1 - 543.21 - 5.4321 - .54321 = ?$

A. 46580   B. 44780   C. 48340   D. 46880   E. 48480

8. $64 \times 16 \div 256 = (4)^{(? - 3)}$

A. 1   B. 4   C. 5   D. 3   E. 8

9. $\dfrac{120.67 \times 198.87 \times 208.89}{12 \times 18 \times 11} = ?$

A. 2090   B. 2444   C. 2540   D. 2870   E. 2950

10. $\sqrt{(?)} + (14)^2 \times 18 \div 6 - 1029 = 83 \times (12 - 7)$

A. 676112   B. 264323   C. 567126   D. 243236   E. 732736

Correct Answers:

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

Explanations:

1. $11.986 + ? = (251.87 \times 8 \times 6.99) \div 25$

⇒ $12 + ? \approx (252 \times 8 \times 7) \div 25$

⇒ $12 + ? = (10.08 \times 8 \times 7)$

⇒ $12 + ? \approx 560$

$? = 560 - 12 = 548$

Hence, option D is correct.

2.

$39.99\% \text{ of } \left(256.039 - \dfrac{62}{2}\right) \times 38.23 = ?$

$? = 39.99\% \text{ of } \left(256.039 - \dfrac{62}{2}\right) \times 38.23$

$\approx 40\% \text{ of } \left(256 - \dfrac{62}{2}\right) \times 38$

⇒ $? = (256 - 31) \times 38$

⇒ $? = 40\% \text{ of } 225 \times 38$

⇒ $? = 90 \times 38 = 3420$

Hence, option C is correct.

3. $(37.12)^2 + (43.88)^2 = (?^2 - \sqrt{2600}) \times \sqrt{1297}$

⇒ $(37)^2 + (44)^2 \approx (?^2 - \sqrt{2601}) \times \sqrt{1296}$

$?^2 - 51 = \dfrac{37^2 + 44^2}{36} = \dfrac{1369 + 1936}{36} = \dfrac{3305}{36} = 91.8$

⇒ $?^2 = 91.8 + 51 = 142.80 \approx 144$

⇒ $? = \sqrt{144} = 12$

Hence, option D is correct.

4. In Approximation,

$$7241 \times \frac{16}{6} + 412 \div ? = 19377$$

$$19309.33 + 412 \div ? = 19377$$

$$412 \div ? = 19377 - 19309 = 68$$

$$? = 412 \div 68$$

$$? = \frac{412}{68} = 6.05 = \approx 6$$

Hence, option B is correct.

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5. $(?)^2 + (125)^2 = (250.13)^2 - (95.12)^2 - 5680$

$(?)^2 + 15625 = \approx (250)^2 - (95)^2 - 5680$

$(?)^2 + 15625 = 62500 - 9025 - 5680$

$(?)^2 + 15625 = 47795$

$(?)^2 = 47795 - 15625 = 32170$

$? = 179.35$

$? \approx 179$

Hence, option D is correct.

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6. $1.2345 + 12.345 + 123.45 + 1234.5 + 12345 = ?$

$1 + 12 + 123 + 1234 + 12345 = ?$

$? = 13715$

Hence, option C is correct.

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7. $54321 - 5432 - 543 - 5 - 1 = ?$

$? = 48340$

Hence, option C is correct.

8. $64 = 4^3; 16 = 4^2; 256 = 4^4$

Hence,

$64 \times 16 \div 256 = (4)^{(? - 3)}$

$4^{3 + 2 - 4} = (4)^{(? - 3)}$

$4^1 = (4)^{(? - 3)}$

$? - 3 = 1$

$? = 4$

Hence, option B is correct.

9.

$$\frac{120.67 \times 198.87 \times 208.89}{12 \times 18 \times 11} = ?$$

$$\frac{120 \times 198 \times 209}{12 \times 18 \times 11} = ?$$

$= 10 \times 11 \times 19 = 2090$

Hence, option A is correct.

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10. $\sqrt{(?)} + 196 \times 3 - 1029 = 83 \times 5$

$\Rightarrow \sqrt{?} - 441 = 83 \times 5$

$\Rightarrow ? = (856)^2$

$\Rightarrow ? = 732736$

Hence, option E is correct.