Approximation Questions for SBI Clerk Pre, IBPS Clerk Pre and IBPS RRB Exams.

Approximation Quiz 38

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

1. $840.95^{1/2} + 17.49 \times 28 - 4096^{1/3} = ?$

A. 495 B. 475 C. 509 D. 515 E. 503

2. $(\sqrt{14.03} + \sqrt{27.99})^2 + 141.07 - 2\sqrt{392} = ?^2 - 106$

A. 8 B. 24 C. 17 D. 22 E. 27

3. $\sqrt[3]{14.98\% \ of \ 750 - 34 \times 4.03} = ?^{1/3} - 33$

A. 1350 B. 1260 C. 1100 D. 1000 E. 1240

4. $912.898 - 27.001 \times ? - 288.878 = 219.003$

A. 23 B. 18 C. 15 D. 24 E. 21

5. $\sqrt[3]{2744.03} - \sqrt{840} + 11.07 = ? \div \sqrt[3]{8.02}$

A. 4 B. – 8 C. – 5 D. 15 E. 20

6. $324.995 \times 15.98 \div 4.002 + 36.88 = ?$

A. 1300 B. 1230 C. 1440 D. 1380 E. 1340

7. $1164 \times 128 \div 8.008 + 969.007 = ?$

A. 18800 B. 19000 C. 19600 D. 19200 E. 18600

8. $5554.999 \div 50.0007 = ?$

A. 110 B. 150 C. 200 D. 50 E. 125

9. $23.001 \times 18.999 \times 7.998 = ?$

A. 4200 B. 3000 C. 3500 D. 4000 E. 2500

10. $12.25 \times ? \times 21.6 = 3545.64$

A. 14.8 B. 12.6 C. 15.8 D. 13.4 E. 16.2

Correct Answers:

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

Explanations:

1. $840.95^{1/2} + 17.49 \times 28 - 4096^{1/3} = ?$

$841^{1/2} + 17.5 \times 28 - 16 = ?$

$29 + 490 - 16 = ?$

$? = 519 - 16$

$? = 503$

Hence, option E is correct.

2. $(\sqrt{14.03} + \sqrt{27.99})^2 + 141.07 - 2\sqrt{392} = ?^2 - 106$

$\approx (\sqrt{14} + \sqrt{28})^2 + 141 - 2\sqrt{392} = ?^2 - 106$

or, $(\sqrt{14})^2 + (\sqrt{28})^2 + 2 \times \sqrt{14 \times 28} + 141 - 2\sqrt{392} = ?^2 - 106$

or, $14 + 28 + 2\sqrt{392} + 141 - 2\sqrt{392} = ?$

or, $14 + 28 + 141 = ?^2 - 106$

or, $183 = ?^2 - 106$

or, $?^2 = 183 + 106$

or, $?^2 = 289$

$? = 17$

Hence, option C is correct.

3. $\sqrt[3]{14.98\%\ of\ 750 - 34 \times 4.03} = ?^{1/3} - 33$

$\sqrt[3]{15\%\ of\ 750 - 34 \times 4} \approx ?^{1/3} - 33$

$112.5 - 34 \times 4 + 33 = ?^{1/3}$

$113 - 136 + 33 = ?^{1/3}$

$?^{1/3} = 10$

$? = 1000$

Hence, option D is correct.

4. 912.898 – 27.001 × ? – 288.878 = 219.003

≈ 913 – 27 × ? – 289 = 219

= 913 – 27 × ? – 289 = 219

∴ 624 – 27 × ? = 219

∴ 27 × ? = 405

∴ ? = 15

Hence, option C is correct.

5. $\sqrt[3]{2744.03} - \sqrt{840} + 11.07 = ? \div \sqrt[3]{8.02}$

Approximate value:

$\sqrt[3]{2744} - \sqrt{840} + 11.07 = ? \div \sqrt[3]{8}$

14 – 29 +11 = ? ÷ 2

25 – 29 = ? ÷ 2

–4 × 2 = ?

? = – 8

Hence, option B is correct.

6. By taking the approximate value for the expression, we have

324.995 × 15.98 ÷ 4.002 + 36.88 = ?

? ≈ 325 × 16 ÷ 4 + 37

? ≈ 325 × 4 + 37

? ≈ 1300 + 37

? ≈ 1337 ≈ 1340

Hence, option E is correct.

7. By taking the approximate value for the expression, we have

$1164 \times 128 \div 8.008 + 969.007 = ?$

$1164 \times 128 \times \frac{1}{8.008} + 969.007 = ?$

$? \approx 1164 \times 128 \times \frac{1}{8} + 969$

$? = 1164 \times 16 + 969$

$? = 18624 + 969 = 19593 \approx 19600$

Hence, option C is correct.

8. By taking the approximate value for the expression, we have

$5554.999 \div 50.0007 = ?$

$5555 \div 50 \cong ?$

$? \cong 111.1$

$? \cong 110$

Hence, option A is correct.

9. By taking the approximate value for the expression, we have

$23.001 \times 18.999 \times 7.998 = ?$

$23 \times 19 \times 8 \cong ?$

$? = 3496$

$? \cong 3500$

Hence, option C is correct.

10. By taking the approximate value for the expression, we have

$12.25 \times ? \times 21.6 = 3545.64$

$12 \times ? \times 22 = 3546$

$264 \times ? = 3546$

$? \cong \frac{3546}{264}$

$? \cong 13.43$

Hence, option D is correct.