Quiz Date: 18th August 2020

Directions (1-15): What approximate value should come in the place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)

Q1. $\sqrt{?} = (1346.92 + 53.11) \div 99.9 - 6.98$
(a) 121
(b) 441
(c) 1024
(d) 49
(e) 196

Q2. $32.01^2 \times 512^{\frac{1}{3}} \times 33.99^2 \div (2^9 \times 16.97^2) = 2^?$
(a) 3
(b) 4
(c) 9
(d) 10
(e) 6

Q3. (14.99% of 4799.995) ÷ ? = (60.11% of 4.111) ^{2}
(a) 150
(b) 25
(c) 100
(d) 50
(e) 125

Q4. $\frac{3}{20}$ of 239.98 = ? ÷ (1.99 × 0.99)
(a) 72
(b) 33
(c) 45
(d) 37
(e) 80

Q5. $\sqrt{1296.002} \div 8.996 \times 9.98 + 39.99 = ?$
(a) 80
(b) 8
(c) 4
(d) 120
(e) 40

Q6. $(13.89)^2 + \sqrt{3598.97} - ? + 10.89\%$ of $1999.9 = (17.9)^2$
(a) 140
(b) 152

(c) 166
(d) 178
(e) 180

Q7. $(7.97)^2 - 9.87\%$ of $239.97 + (17.87)^2 + 419.97 = (?)^2$
(a) 18
(b) 22
(c) 36
(d) 40
(e) 28

Q8. $\frac{?+134.5}{12.9} + (19.87)^2 - 24.89\%$ of $563.8 = (16.98)^2 - 8.79$
(a) 138
(b) 158
(c) 124
(d) 110
(e) 150

Q9. $? \times 22.97 + (24.97)^2 - (19.99)^2 + 188.9 = (22.93)^2$
(a) 16
(b) 10
(c) 5
(d) 1
(e) 17

Q10. $\frac{593.89}{?} + 14.97 \times 35.98 + \frac{1259.81}{17.93} = (25.99)^2$
(a) 2
(b) 9
(c) 15
(d) 20
(e) 17

Q11. $2775 \times \frac{160}{\sqrt{(?)}} = 5550$

(a) 6400
(b) 5625
(c) 900
(d) 1600
(e) 2025

$$24.98^2 \times \frac{16.02^2}{(7.98 \times 15.04)} \times 38.93 = 130 \times ?^2$$

Q12.
(a) 25
(b) 45
(c) 40
(d) 30
(e) 20

Q13. 71.98% of 1200 + 35.06% of 270 =?% of 600
(a) 140
(b) 125
(c) 120
(d) 135
(e) 160

Q14. 88.05% of 450 = ?% of 530
(a) 70
(b) 68
(c) 75
(d) 80
(e) 65

Q15. $\sqrt{899} \times (12.005)^2 + ? = 5000$
(a) 680
(b) 720
(c) 750
(d) 620
(e) 630

Solutions

S1. Ans.(d)
Sol.
$\sqrt{?} \simeq (1347 + 53) \div 100 - 7$
$\Rightarrow \sqrt{?} \simeq 14 - 7$
$\Rightarrow \sqrt{?} \simeq 7$
$\Rightarrow ? \simeq 49$

S2. Ans.(e)
Sol.
$2^? \simeq 32^2 \times 8 \times 34^2 \div (2^9 \times 17^2)$
$\simeq \frac{2^{15} \times 17^2}{2^9 \times 17^2}$
$2^? \simeq 2^6$
$\Rightarrow ? \simeq 6$

S3. Ans.(e)
Sol.
$\left(\frac{15}{100} \times 4800\right) \div ? \simeq \left(\frac{60}{100} \times 4\right)^2$
$\Rightarrow ? \simeq \frac{72,000}{24 \times 24}$
$\Rightarrow ? \simeq 125$

S4. Ans.(a)
Sol.
$\frac{3}{20} \times 240 \simeq ? \div (2 \times 1)$
$\Rightarrow ? \simeq 72$

S5. Ans.(a)
Sol.
$? \simeq \frac{36}{9} \times 10 + 40$
$\simeq 40+40$
$? \simeq 80$

S6. Ans.(b)
Sol.
$(14)^2 + \sqrt{3600} - ? + \frac{11}{100} \times 2000 = (18)^2$
$196 + 60 - ? + 220 = 324$
$? = 476 - 324$
$? = 152$

S7. Ans.(e)
Sol.

$$(8)^2 - \frac{10 \times 240}{100} + (18)^2 + 420 = (?)^2$$
$$64 - 24 + 324 + 420 = (?)^2$$
$$(?)^2 = 784$$
$$? = 28$$

S8. Ans.(a)
Sol.
$$\frac{?+135}{13} + (20)^2 - \frac{25}{100} \times 564 = (17)^2 - 9$$
$$\frac{?+135}{13} + 400 - 141 = 289 - 9$$
$$\frac{?+135}{13} = 280 - 259$$
$$? = 273 - 135$$
$$? = 138$$

S9. Ans.(c)
Sol.
$$? \times 23 + (25)^2 - (20)^2 + 189 = (23)^2$$
$$23 \times ? + 225 + 189 = 529$$
$$23 \times ? = 115$$
$$? = 5$$

S10. Ans.(b)
Sol.
$$\frac{594}{?} + 15 \times 36 + \frac{1260}{18} = (26)^2$$
$$\frac{594}{?} + 540 + 70 = 676$$
$$? = \frac{594}{66}$$
$$?= 9$$

S11. Ans.(a)
Sol.

$$2775 \times \frac{160}{\sqrt{?}} = 5550$$

$$\sqrt{?} = 80$$

$$\Rightarrow ? = 6400$$

S12. Ans.(e)
Sol.

$$25^2 \times \frac{16^2}{8 \times 15} \times 39 = 130 \times ?^2$$

$$\Rightarrow ?^2 = \frac{25^2 \times 16^2 \times 39}{8 \times 15 \times 130}$$

$$\Rightarrow ?^2 = \frac{125 \times 16}{5}$$

$$\Rightarrow ?^2 = (5 \times 4)^2$$

$$\Rightarrow ?^2 = 20^2$$

$$\Rightarrow ? = 20$$

S13. Ans.(e)
Sol.

$$\frac{72}{100} \times 1200 + \frac{35}{100} \times 270 = \frac{?}{100} \times 600$$

$$\Rightarrow ? = 159.75$$

$$\Rightarrow ? \simeq 160$$

S14. Ans.(c)
Sol.

$$\frac{88}{100} \times 450 \simeq \frac{?}{100} \times 530$$

$$\Rightarrow ? \simeq 74.716$$

$$\Rightarrow ? \simeq 75$$

S15. Ans.(a)
Sol.

$$\sqrt{899} \times (12.005)^2 + ? = 5000$$

$$\Rightarrow 30 \times 12^2 + ? = 5000$$

$$\Rightarrow ? = 680$$