



Date : 23rd Nov 2023

Quantitative Aptitude - Approximation

English

**Q:1** What approximate value should come in the place of question mark (?) in the following question?

$$62.55\% \text{ of } 36.01 + 30.77\% \text{ of } 39.22 + 21.48\% \text{ of } 41.88 = ?$$

1. 42
2. 34
3. 39
4. 32
5. 43.5

**Q:2** What approximate value should come in the place of question mark (?) in the following question?

$$? = 6.28\% \text{ of } 32.02 + 5.90\% \text{ of } 34.13 + 5.59\% \text{ of } 35.97 + 5.30\% \text{ of } 38.001$$

1. 6
2. 10
3. 8
4. 7
5. 9

**Q:3** What approximate value should come in the place of question mark (?) in the following question?

$$? = 35.73\% \text{ of } 70.11 + 55.58\% \text{ of } 44.98 - 11.77\% \text{ of } 33.79$$

1. 44
2. 56
3. 51
4. 48
5. 46

**Q:4** What approximate value should come in the place of question mark (?) in the following question?

$$? = 37.56\% \text{ of } 88 + 33.32\% \text{ of } 36$$

1. 22
2. 24
3. 21.5
4. 45
5. 25

**Q:5** What approximate value should come in the place of question mark (?) in the following question?

$$? = (27)^{0.68} + (16)^{1.55} + (243)^{0.21}$$

1. 102
2. 71
3. 90
4. 94
5. 76

**Q:6 Direction:** What approximate value should come in the place of question mark (?) in the following question?

$$(7921.11)^{1/2} + (6084.44)^{1/2} - (4624.44)^{1/2} - (529.09)^{1/2} = ? + (729.09)^{3/2}$$

1. 19787
2. -19928
3. -19607
4. 19928
5. 19234

**Q:7** What approximate value should come in the place of question mark (?) in the following question?

$$149.133 - 324.187 \div 26.991 = 0.5 \times ?$$

1. 245
2. 256
3. 264
4. 274
5. 290

**Q:8** What approximate value should come in the place of question mark (?) in the following question?

$$25.124\% \text{ of } 639.998 \div 1.987^{-2} = ?$$

1. 600
2. 700
3. 640
4. 670
5. 500

**Q:9** What approximate value should come in the place of question mark (?) in the following question?

$$2831.994 \div 23.998 + 11.99^2 \div 5.991 = ?^2$$

1.  $\pm 12$
2.  $\pm 13$
3.  $\pm 18$
4.  $\pm 11$
5.  $\pm 14$



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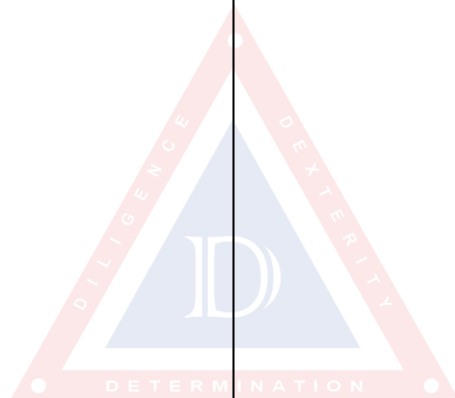
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**Q:10** What approximate value should come in the place of question mark (?) in the following question?

$$6574.98 \div 74.98 + \sqrt{625.01} \times 14.83 = ? + 45.11$$

1. 462
2. 418
3. 467
4. 450
5. 475





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## Answer Key

1. (5)	2. (3)	3. (5)	4. (4)	5. (5)
6. (3)	7. (4)	8. (3)	9. (1)	10. (2)

## Answers and Solutions

**Q:1** The correct answer is **Option 5** i.e. **43.5**.

62.55% of 36.01 + 30.77% of 39.22 + 21.48% of 41.88 = ?

can be written as

$$62.5\% \text{ of } 36 + 30.76\% \text{ of } 39 + 21.42\% \text{ of } 42 \\ \Rightarrow 62.5\% \text{ of } 36 + 30.76\% \text{ of } 39 + 21.42\% \text{ of } 42 = \\ (5/12) \times 36 + (4/13) \times 39 + (3/14) \times 42 \\ \Rightarrow 5 \times (9/2) + 4 \times 3 + 3 \times 3 = 22.5 + 12 + 9 = 43.5$$

**Q:2** The correct answer is **Option 3** i.e. **8**

6.28% of 32.02 + 5.90% of 34.13 + 5.59% of 35.97 + 5.30% of 38.001

can be written as 6.25% of 32 + 5.88% of 34 + 5.55% of 36 + 5.26% of 38

$$\Rightarrow 6.25\% \text{ of } 32 + 5.88\% \text{ of } 34 + 5.55\% \text{ of } 36 + 5.26\% \text{ of } 38 = (1/16) \times 32 + (1/17) \times 34 + (1/18) \times 36 + (1/19) \times 38 \\ = 2 + 2 + 2 + 2 = 8$$

**Q:3** The correct answer is **Option 5** i.e. **46**

? = 35.73% of 70.11 + 55.58% of 44.98 - 11.77% of 33.79

can be written as

$$? = 35.70\% \text{ of } 70 + 55.55\% \text{ of } 45 - 11.76\% \text{ of } 34 \\ ? = (5/14) \times 70 + (5/9) \times 45 - (2/17) \times 34 \\ ? = 5 \times 5 + 5 \times 5 - 2 \times 2 = 25 + 25 - 4 \\ ? = 46$$

**Q:4** The correct answer is **Option 4** i.e. **45**

? = 37.56% of 88 + 33.32% of 36

can be written as

$$? = 37.50\% \text{ of } 88 + 33.33\% \text{ of } 36 \\ ? = (3/8) \times 88 + (1/3) \times 36 \\ ? = 3 \times 11 + 12 = 33 + 12 = 45$$

**Q:5** The correct answer is **Option 5** i.e. **76**

? =  $(27)^{0.68} + (16)^{1.55} + (243)^{0.21}$

can be written as

$$? = (27)^{2/3} + 16^{3/2} + 243^{1/5}$$

$$27^{2/3} = 9$$

$$16^{3/2} = 64$$

$$243^{1/5} = 3$$

$$\text{Thus, } ? = (27)^{0.68} + (16)^{1.5} + (243)^{0.21} = 9 + 64 + 3 = 76$$

**Q:6** The correct answer is **Option 3** i.e. **-19607**.

$$(7921.11)^{1/2} + (6084.44)^{1/2} - (4624.44)^{1/2} - (529.09)^{1/2} = ? + (729.09)^{3/2}$$

Taking approximate values,

$$\Rightarrow (7921)^{1/2} + (6084)^{1/2} - (4624)^{1/2} - (529)^{1/2} = ? + (729)^{3/2}$$

$$\Rightarrow (89^2)^{1/2} + (78^2)^{1/2} - (68^2)^{1/2} - (23^2)^{1/2} = ? + (27^2)^{3/2}$$

$$\Rightarrow 89 + 78 - 68 - 23 = ? + 19683$$

$$\Rightarrow ? = -19607$$

**Q:7** The correct answer is **option 4** i.e. **274**

$$149.133 - 324.187 \div 26.991 = 0.5 \times ?$$

Taking approximate values:

$$\Rightarrow ? \times 0.5 = 149 - 324 \div 27$$

$$\Rightarrow ? \times 0.5 = 149 - 12$$

$$\Rightarrow ? \times 0.5 = 137$$

$$\Rightarrow ? = 137 \times 2$$

$$\Rightarrow ? = 274$$

**Q:8** The correct answer is **option 3** i.e. **640**

$$25.124\% \text{ of } 639.998 \div 1.987^{-2} = ?$$

Taking approximate values:

$$\Rightarrow ? = 25\% \text{ of } 640 \div 2^{-2}$$

$$\Rightarrow ? = (25/100) \times 640 \times 4$$

$$\Rightarrow ? = 160 \times 4$$

$$\Rightarrow ? = 640$$

**Q:9** The correct answer is **option 1** i.e. **± 12**

$$2831.994 \div 23.998 + 11.99^2 \div 5.991 = ?^2$$

Taking approximate values:

$$\Rightarrow 2832/24 + 12^2/6 = ?^2$$

$$\Rightarrow 118 + 24 = 142$$

$$\Rightarrow 142 = ?^2$$

$$\Rightarrow ? = \pm 12$$

**Q:10** The correct answer is **option 2** i.e. **418**

$$6574.98 \div 74.98 + \sqrt{625.01} \times 14.83 = ? + 45.11$$

Taking approximate values:

$$\Rightarrow 6575 \div 75 + \sqrt{625} \times 15 = ? + 45$$



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$$\Rightarrow 88 + 25 \times 15 = ? + 45$$

$$\Rightarrow ? = 463 - 45$$

$$\Rightarrow ? = 418$$

