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Simplification and Approximation forms an important part of all Banking exams as 3-5 questions are expected from this chapter alone. In Simplification, we have to simplify & calculate the given expressions whereas, in Approximation, we take the approximate values & give the answers accordingly.

Basic Rules of Simplification

BODMAS Rule

It defines the correct sequence in which operations are to be performed in a given mathematical expression to find the correct value. This means that to simplify an expression, the following order must be followed -

 $\mathbf{B} = Bracket$

O = Order (Powers, Square Roots, etc.)

D = Division

M = Multiplication

A = Addition

S = Subtraction

- 1. Hence, to solve simplification questions correctly, you must apply the operations of brackets first. Further, in solving for brackets, the order (), {} and [] should be strictly followed.
- 2. Next you should evaluate exponents (for instance powers, roots etc.)
- 3. Next, you should perform division and multiplication, working from left to right. (division and multiplication rank equally and are done left to right).
- 4. Finally, you should perform addition and subtraction, working from left to right. (addition and subtraction rank equally and are done left to right).

EXAMPLE 1: Solve $12 + 22 \div 11 \times (18 \div 3)^2 - 10$

$$= 12 + 22 \div 11 \times 6^2 - 10$$
 (Brackets first)

$$= 12 + 22 \div 11 \times 36 - 10$$
 (Exponents)

$$= 12 + 2 \times 36 - 10 = 12 + 72 - 10$$
 (Division and multiplication, left to right)

= 84 - 10 = 74 (Addition and Subtraction, left to right)

EXAMPLE 2: Solve $4 + 10 - 3 \times 6 / 3 + 4$

= 4 + 10 - 18/3 + 4 = 4 + 10 - 6 + 4 (Division and multiplication, left to right)

= 14 - 6 + 4 = 8 + 4 = 12 (Addition and Subtraction, left to right)

To Solve Modulus of a Real Number

The Modulus (or the absolute value) of x is always either positive or zero, but never negative. For any real number x, the absolute value or modulus of x is denoted by |x| and is defined as

$$|x| = x \{ if \ x \ge 0 \} \ and \ -x \{ if \ x < 0 \}$$

EXAMPLE 1: Solve |8|

$$/8/ = /-8/ = 8$$

Tips to Crack Approximation

Conversion of decimal numbers to nearest number

To solve such questions, first convert the decimal to nearest value. Then simplify the given equation using the new values that you have obtained.

EXAMPLE 1: Solve 4433.764 - 2211.993 - 1133.667 + 3377.442

Here.

4433.764 = 4434

2211.993 = 2212

1133.667 = 1134

3377.442 = 3377

Now simplify, 4434 - 2212 - 1134 + 3377 = 4466

EXAMPLE 2: Solve 530 x 20.3% + 225 x 16.8%

Here, 20.3% *becomes* 20% *and* 16.8% *becomes* 17%

Now, simplify 530 x 20% + 225 x 17% = 106 + 38.25 = 144.25

Approximation of Square Roots

- 1. To simplify a square root, you can follow these steps:
- 2. Factor the number inside the square root sign.
- 3. If a factor appears twice, cross out both and write the factor one time to the left of the square root sign. If the factor appears three times, cross out two of the factors and write the factor outside the sign, and leave the third factor inside the sign. Note: If a factor appears 4, 6, 8, etc. times, this counts as 2, 3, and 4 pairs, respectively.
- 4. Multiply the numbers outside the sign.
- 5. Multiply the numbers left inside the sign.
- 6. To simplify the square root of a fraction, simplify the numerator and simplify the denominator.

Now we are going to share some important tips and tricks that will help you prepare the Simplification - Approximation topic better.

Simplification / Approximation: Tips and Tricks

We strictly recommend you to learn square (up to 30) and cube (up to 20). We will discuss here methods to solve and types of problems which are generally asked in exams.

Join Us: Telegram.me/GovtAdda *Unit Digits and its applications*

Ex: 298: 8 is the unit place in 298.

Ex: 1947: 7 is the unit place in 1847.

Ex: 2345×6789

(A)15920206 (B)15920208 (C) 15920205 (D) 15920204

Solution: When unit place of 5 in 2345 and unit place of 9 in 6789 multiplies we will get 45. So when both numbers are multiplies it should have 5 at its unit place which is only in option C.

Ex: $43 \times 36 + 57 \times 89$

(A)6380 (B)5728 (C)6782 (D)6621

The unit digit will be the sum of the individual unit digits.

$$(3\times6)+(7\times9) = 18+63 = 81$$

So the resultant number must have 1 at its unit place.

Digit Sum

It is the sum of all digits of the number used in making the number and keep adding till we have only one digit left.

Ex: 2345

 $Digit\ sum = (2+3+4+5) = 14 = 1+4 = 5$

Ex: 123456789

 $Digit\ sum = (1+2+3+4+5+6+7+8+9) = 45 = (4+5) = 9$

Note: In this case our assumption is that 9 should be treated as 0.

Ex: $123 \times 456 \times 781$

(A)43804728 (B) 53804728 (C) 53804528 (D)33804958

LHS (Digit sum)= $(1+2+3)\times(4+5+6)\times(7+8+1)= 6\times 6\times 7 = 36\times 7 = 9\times 7 = 63 = 0$

RHS (Digit sum):

(A)
$$(4+3+8+0+4+7+2+8)=36=(3+6)=9=0$$

$$(B) (5+3+8+0+4+7+2+8) = 37 = 10 = (1+0)$$

= 1

$$(C) = 35 = (3+5) = 8$$

$$(D) = 31 = (3+1) = 4$$

So, Option A is the answer.

 $Ex: 2011 \times 97 + 50123 = ? \times 743$

Solution:

In LHS 2011×97, unit digit will be 7

In 50123, the unit digit is 3, So when we add these, the addition will have '0' at its unit place.

In RHS, we also need '0' at the unit place, the number which has to multiplied by 743 must consist 0 at its unit place. So, option (D) and (E) are eliminated.

Now Let's apply Unit digit and digit sum

In LHS, 2011×97+ 50123

$$4 \times 7 + 11 = 28 + 11 = 10 + 2 = 1 + 2 = 3$$

In RHS if option is (A)

then
$$340 \times 743 = 7 \times 14 = 7 \times 5 = 35 = 8$$

 $LHS \neq RHS$

In RHS if option is (B)

then
$$330 \times 743 = 6 \times 14 = 6 \times 5 = 30 = 3$$

LHS = RHS, It is the answer. If you check other options it will not satisfy this.

 $Ex: 6269+0.75 \times 4444+0.8 \times 185 = ?$

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(A)9759 (B)9750 (C)9740 (D)9755 (E)9655

Solution:

We can see that unit digit is Zero. So options remained are B and C.

Now,
$$(23)+(12)+(13)$$

$$5+3+4=12=3$$

Applying digit sum for (C) = 2 and (B) = 3

So, answer is B

How to calculate Square Root?

Perfect Square

If the square ends in	1	4	5	6	9	0
The number would end in	1,9	2,8	5	4,6	3,7	0

When a number is given, split it in two parts, in such a way that 2nd part has last two digits of number and first part will have remaining digits.

Ex 1: Square root of 3481

Split number in two parts i.e. 34 and 81(last two digits)

We know that square of number ends in 1, so square root ends either in 1 or 9.

Check, 34 lies between 25 (square of 5) and 36 (square of 36). Take smaller number.

So, our answer is either 51 or 59.

but we know 502 = 2500 and 602 = 3600, 3481 is nearest to 3600. So the answer is 59.

or 34 is more close to 36 than 25, so the answer is 59.

Ex 2: 76176

Split: 761 76

Number will end in either 4 or 6,

729(272) < 761 < 784 (282), So the answer may be 274 or 276. 761 is more close to 784, so the answer is 276.

Ex 3: square root of 75076

Split: 750 76

Number will end in either 4 or 6

729(272) < 750 < 784 (282), So the answer may be 274 or 276. 750 is more close to 729 than 784, so the answer is 274.

Non-Perfect Square: This gives approximate value not an exact value.

Ex4: 1000

961(312) < 1000 < 1024(322)

Now. 1000 is nearest to 1024

So, $32 - ((1024-1000)/(2\times 32))$

32 - (24/64)

32-.375 = *31.625*

or $31+((1000-961)/(2\times31))$

31 + (39/62)

 $31 + .629 \approx 31.63$

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would end in

When a number is given, split it in two parts, in such a way that 2nd part has last three digits of number and first part will have remaining digits.

Ex 1: cube root of 3112136

Split in two parts 3112 136

Number will end with 6

143(2744) < 3112 < 153(3375)

Choose the smaller number and answer will be 146.

Ex 2: cube root of 2406104

split in two parts 2406 104

Number will end with 4

133(2197) < 2406 < 143(2744)

So the answer will be 134.

To approximate Actual values

If (and only if) we need to find the actual value of a given fraction, represent the numerator as sum or difference of terms related to denominator.

$$1449/132 =$$

$$1449 = 1320 + 132 - 3$$

1449/132 = 10 + 1 - a small value \approx little less than 11 (actual value is 10.977)

How to calculate Cube root?

If the cube ends in	1	2	3	4	5	6	7	8	9	0
The number	1	8	7	4	5	6	3	2	9	0

$$36587 = 36900 - 246 - 61.5 - \dots$$

 $36587 / 123 = 300 - 2 - 0.5 - a \text{ small value} \approx \text{little}$ less than 297.5 (actual is 297.455)

1569 / 12 =

$$1569 = 1200 + 360 + 8.4 + 0.6$$

$$1569 / 12 = 100 + 30 + 0.7 + 0.05 = 130.75$$

This method should suffice for the level of accuracy expected in our exams.

Another method is to reduce the complexity of fraction and then solve. Complexity of a fraction can be directly related to the complexity of its denominator. If we simplify denominator, we simplify the fraction. Add to or subtract from the denominator to make it an easier value (like add 2 to 1998 to get 2000 or subtract 16 from 116 to get 100).

While adjusting the denominator always remember to BALANCE the fraction. Balancing fraction is not just adding/subtracting the same number to/from the numerator that we used to change the denominator.

Consider a fraction p/q = n; then p = qn.

If we add a number x to q, we need to add nx to p to balance the fraction. Also if q is reduced by a number x, p needs to be reduced by nx.

Here the approximation comes while fixing n. If the given options are separated well enough from each other and simplification of denominator is pretty obvious, then this method can be employed. If we have closer options it is better to stick with the method we discussed first.

1569/12 = ?

Here if we make the denominator as 10 we can tell the value in no time. To do so, we need to subtract 2 from denominator. Numerator is more than 130 times the denominator ($n \approx 130$). Hence to balance the fraction we need to subtract 2 * 130 from numerator.

 $1569 / 12 \approx 1309 / 10 \approx 130.9$ (actual value is 130.75)

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Most of the DI questions revolves around sorting the given numbers/fractions or finding its relative position (lesser/greater than) based on a reference value. If we don't need the actual value, DON'T find the actual value.

Find the largest and smallest value among the below fractions

56/298, 46/374, 138/493, 37/540, 670/2498

We will do the first level approximation by guesstimating the given fractions. Try to represent the given numbers in 1/x format. While arranging fractions we usually try to represent the given fractions with the same denominator after finding the LCM of all denominators. But we are here to solve faster using approximation. We will take an easier route, Make the numerator same, i.e. one.

56/298, we know 56 * 6 > 298 = > 56/298 > 1/6. Note that we didn't find the actual value of 56 * 6; we just want to get the closest multiple of 56 to the number 298.

56/298 = Greater than 1/6

46/374 = Less than 1/8

138/493 = Greater than 1/4

37/540 = Greater than 1/15

670/2498 = Greater than 1/4

We don't have any confusion in finding the smallest which is 37/540 (1/15 is less than other values). But we have 2 candidates fighting for the largest fraction title, 138/493 and 670/2498. We will consider only those two and try to get an approximate value. We will try both methods discussed before for finding the actual value.

Method 1:

$$138 = 98.6 + 24.65 + 12.325 + \dots$$

 $138/493 \approx 0.2 + 0.05 + 0.025 + small \ value \approx greater \ than \ 0.275$

To Approximate relative values

670 = 499.6 + 124.9 + 49.96 - 4.46

 $670/2498 \approx 0.2 + 0.5 + 0.02 - small value \approx less$ than 0.27

Hence 138/493 is the largest.

Method 2:

138/493,

We can see denominator is close to 3.5 times numerator. Hence if we increase denominator by x, we need to balance the fraction by increasing numerator by x/3.5. We will get an easier fraction if we can write denominator as 500 by adding 7. We also need to add 7/3.5 = 2 to the numerator.

 $138/493 \approx 140/500 \approx 0.28$

Similarly for 670/2498, here we can get a neat fraction by adding 2 to the denominator. And here as 2 is negligible compared to the denominator we can very well skip the balancing part and write fraction as 670/2500 = 0.268

Hence, 138/493 is the largest.

Here we wrote 670/2500 = 0.268. How?

670/2500 = 67/250, we can get denominator as 1000 by multiplying both sides by 4. Hence 67/250 = 268/1000 = 0.268

We used the same logic while 'cleaning up' 140/500. Multiply both sides with 2 to get denominator as 1000. Fraction becomes 280/1000 = 0.028

Here, instead of finding actual values of all five fractions and comparing them we just played with the relative values of the fractions and found actual values only for two cases which were required to get the answer.

Another usual DI question type is to find the relative position of a given value based on a reference value. This question comes like 'How many students scored marks more than class average (Reference value)', 'How many players has strike rate higher than Sachin (Reference value)' etc...

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How many of the given values are greater than 0.7

11/13, 25/34, 33/46, 44/65, 56/81

As we are asked to find only the relative values (with respect to 0.7) don't jump into finding actual values. Take few seconds to write the below statement which will help us in solving faster.

If
$$x/y > 0.7$$
, $x > 0.7$ y, $10x > 7y$

So we need to find all fractions where 10 times numerator is greater than 7 times y. multiplying both sides with 10 is to ease the calculation and simplify the comparison:)

Take fractions one by one

Three fractions (11/13, 25/34 and 33/46) are greater than 0.7

Most of us have higher comfortable level with multiplication than division. To find relative values based on a reference point, convert division into multiplication. This way we can get our answers faster without messing with our accuracy.

In our example 56/81 = 0.69, still we were able to find it is lesser than 0.7 without doing any complicated or time consuming stuff.

Simplification Tricks – Easiest way to choose simplification questions:

STEP 1: Know about BODMAS Rule. Following are the list of priority given for brackets and signs.

STEP 2: If an expression Contains brackets, the expression within the **brackets** should be simplified first.

STEP 3: If an expression contains '**Of**', multiplication, division, addition and subtraction, then **of** should be performed first then followed by multiplication or division.

Proceeding from left to right, addition and subtraction are carried out in the order in which the sign of addition and subtraction are given.

If expression contains 'Of' and Division – always do 'Of' and then do division

STEP 4: If expression involves all

the four operations, then multiplication and division is carried out first in the order in which they are given from left to right. The same rules are carried out for addition and subtraction

Learn squares and cubes of number (Simplification Tricks)

Simplification Tricks – Squares $(1^2 \text{ to } 30^2)$:

$$\cdot$$
 1^2-1

$$\cdot$$
 2^2-4

•
$$3^2 - 9$$

$$4^2 - 16$$

$$\cdot 5^2 - 25$$

$$\cdot \qquad 6^2 - 36$$

$$\cdot 7^2 - 49$$

$$\cdot \qquad 8^2 - 64$$

$$9^2 - 81$$

$$10^2-100$$

$$\cdot 11^2 - 121$$

$$12^2-144$$

$$13^2 - 169$$

$$14^2 - 196$$

·
$$15^2 - 225$$

$$16^2 - 256$$

$$17^2 - 289$$

$$\cdot 18^2 - 324$$

$$19^2 - 361$$

$$\cdot 20^2 - 400$$

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$$\cdot 21^2 - 441$$

$$\cdot$$
 22² – 484

$$23^2 - 529$$

$$\cdot 24^2 - 576$$

$$\cdot 25^2 - 625$$

$$\cdot 26^2 - 676$$

$$\cdot$$
 27² – 729

$$\cdot$$
 28² – 784

$$29^2 - 841$$

$$30^2 - 900$$

Simplification Tricks – Cubes $(1^3 to 15^3)$:

$$1^3 - 1$$

$$\cdot 2^3 - 8$$

·
$$3^3 - 27$$

•
$$4^3 - 64$$

$$\cdot 5^3 - 125$$

•
$$6^3 - 216$$

$$\cdot$$
 7³ – 343

$$\cdot 8^3 - 512$$

•
$$9^3 - 729$$

$$10^3 - 1000$$

$$11^3 - 1331$$

$$12^3 - 1728$$

$$13^3 - 2197$$

$$14^3 - 2744$$

$$15^3 - 3375$$

Like Us : Facebook.com/GovernmentAdda *Example 1:* $21^2/49 \times 6$

Solution: From the above question if we know the square value of 21^2 , then this question will be easily solved

STEP 1: $21^2 = 441$ **STEP 2:**441/49 = 9**STEP 3:** $9 \times 6 = 54$

STEP 4:Hence the answer for above series is 54

REMEMBER FREQUENTLY ASKED FRACTION VALUES (Simplification Tricks)

$$\cdot$$
 5% = 0.05

$$6 \frac{1}{4} \% = 0.0625$$

$$\cdot$$
 10% = 0.1

$$12 \frac{1}{2} = 0.125$$

$$\cdot$$
 16 × (2/3)% = 0.166

$$\cdot$$
 20 % = 0.2

$$25\% = 0.25$$

$$\cdot$$
 33 × (1/3)%= 0.33

$$40\% = 0.4$$

$$\cdot$$
 50% = 0.5

$$\cdot$$
 60% = 0.6

$$\cdot$$
 66 × (2/3) = 0.66

$$90\% = 0.9$$

$$100\% = 1$$

$$150\% = 1.5$$

$$\cdot$$
 200 % = 2

Example 2): 60% of 250 +25% of 600

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STEP 1: Know the values of 60% = 0.6 and 25 % = 0.25

STEP 2: Now directly multiply $0.6 \times 250 + 0.25 \times 600$

$$0.25 \times 600 = 150$$

STEP 4:
$$150 + 150 = 300$$

STEP 5:Hence the answer for above series is 300

Example 3): Solve mixed fraction – Multiplication

EXAMPLE 3:
$$2 \times (3/5) \times 8 \times (1/3) + 7 \frac{1}{2} \times 2 \times (2/3)$$

STEP 1:
$$2 \times (3/5) \times 8 \times (1/3) = (13/5) \times (25/3) = 65/3$$

STEP 2:
$$+7\frac{1}{2} \times 2 \times (2/3) = 43/6 \times 12/5 = 86/5$$

STEP 3:
$$65/3 + 86/5 = 38 \times (15/13)$$

STEP 4:hence the answer for above series $is38 \times (15/13)$

Example 4): Solve Mixed Fraction addition

Example 4:
$$19 \times (3/5) + 23 \times (2/3) - 24 \times (1/5)$$

STEP 1: Take all the whole number outside the bracket i.e. 19+23-24=18

STEP 2:Add fractions within bracket $18 \times [(3/5) + (2/3) - (1/5)] = 18(16/15)$

STEP 3: Hence the answer for above series is 18(16/15)

Example 5): $(?)^2 + 18 \times 12 = 6^2 \times 5 \times 2$

STEP 1: Multiply
$$18 \times 12 = 216$$

STEP 3: Multiply
$$36 \times 5 \times 2 = 360$$

STEP 4:
$$(X)^2 + 216 = 360$$

STEP 5:
$$(X)^2 = 360-216 = 144$$

STEP 6:Therefore
$$X = 12$$

Simplification Questions

$$Q1.(47 \times 562.58) \div (23 \times 112.23) = ?$$

- a) 17
- b) 10
- c) 18
- d) 21
- e) 12

$$Q2. (34.9)^2 \div 7 + \sqrt{?} = 217.02$$

- a) 1765
- b) 1681
- c) 1742
- d) 1849
- e) 1723

- 623.68
- a) 1680
- b) 1750
- c) 1720
- d) 1580
- e) 1770

$$Q4.6832 \div 58 \times ? - 1624.64 = 1064.28$$

- *a*) 24
- b) 34
- c) 20
- d) 42
- e) 32

- b) 60
- c) 88
- d) 63
- e) 82

$$Q6...11.25\%$$
 of $135 + 8.72\%$ of $463 = ?$

- b) 55
- c) 35
- d) 65
- e) 44

$$Q7. \frac{4830}{\sqrt{2314}} \times 22.678 = ?$$

- a) 2230
- b) 2195
- c) 2400
- d) 2315
- e) 2600

$$Q8. \ 26.89 \times 168.98 + 5317 = ?$$

- a) 8980
- b) 8880
- c) 10980
- d) 9880
- e) None of these

Q9.
$$1527 \times 0.3 + 38\%$$
 of $380 + 49 \times 0.490 = ?$

- a) 625
- b) 627
- c) 527
- d) 427
- e) 637

Q10.
$$3\frac{2}{7} + 6\frac{1}{7} - 2\frac{1}{7} + 13\frac{2}{3} = ?$$

- a) 19
- b) 18
- c) 21
- d) 23
- e) 24

$$Q11. (4874 + 5995 + 3329) \div (712 + 510 + 325) =$$

- a) 9
- b) 11
- c) 7
- d) 11

e) 12

Q12. 63.5% of 8924.19 + 22% of 5324.42 = ?

- a) 6278
- b) 6128
- c) 6228
- d) 5624
- e) 6817

$$Q13.\ 27 \times 164 + 3739 = ? - 32.630$$

- a) 105400
- b) 4000
- c) 8200
- d) 690
- e) 6300

- a) 5300
- b) 5500
- c) 5000
- d) 4900
- e) 5280

$$Q15. \ 1.65\% \ of \ 8471 - 0.61\% \ of \ 9326 = ?$$

- a) 76
- b) 78
- c) 75
- d) 80
- e) 95

Q16. .60% of
$$[\frac{1}{13} \times 2920 + \frac{5}{18} \times 2075] = ?$$

- a) 360
- b) 480
- c) 520
- d) 660
- e) 32

Q17.
$$25\%$$
 of $84 \times 24\%$ of $85 = ?$

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- *a*) 424.2
- b) 488.4
- c) 482.8
- d) 428.4
- e) None of these

$$Q18.7365 + (5.4)^2 + \sqrt{?} = 7437.16$$

- a) 1894
- b) 1681
- c) 1764
- d) 2025
- e) None of these

Q19.
$$.64 \times 16 \div 256 = (4)^{?-3}$$

- a) 4
- b) 1
- c) 5
- *d*) 3
- e) None of these

$$Q20...25.05 \times 123.95 + 388.999 \times 15.001 = ?$$

- a) 900
- b) 8950
- c) 8935
- d) 8975
- e) 8995

$$Q21.83\%$$
 of $6242 \times 12\%$ of $225 = ?$

- a) 146286.42
- b) 134263.18
- c) 139883.22
- d) 1562218.23
- e) None of these

$$Q22. \ 2^{0.2} \times 64 \times 8^{1.3} \times 4^{0.2} = 8^{\circ}?$$

- a) 2.7
- b) 2.5
- c) 3.7
- d) 3.2

$$Q23. (73)^3 = ?$$

- a) 365127
- b) 298627
- c) 305867
- d) 389017
- e) None of these

$$Q24. 1\frac{1}{8} + 1\frac{6}{7} + 3\frac{3}{5} = ?$$

- a) $8\frac{121}{140}$
- b) $6\frac{163}{280}$
- c) $9\frac{197}{280}$
- d) $7\frac{117}{140}$

$$Q25...? \div 25 \div 12 = 248.76 <$$

- a) 74628
- b) 497.52
- c) 62452
- d) 870.66
- e) None of these

$$Q26. (36.01) \times (4096) \times (37.99) \div (9 \times 75.98) = 4$$

- *a*) 7
- *b*) 3
- c) 5
- *d*) 8
- e) 7

$$Q27. (4809.01 + 9615.96 + 14425.03) \div 4.98 + 6.02 = (?)$$

- *a*) 92
- b) 67
- c) 72
- d) 76
- e) 74

Q28. $(35\% \text{ of } 74000) \div ? = (123 \% \text{ of } 13.02) \times 2.01$

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- *a*) 40
- b) 50
- c) 75
- d) 90
- e) 65

$$Q29. \ 4/15 \ of \ 393 + 7/12 \ of \ 473 = ? \times (1.99 + 1.01)$$

- a) 127
- b) 137
- c) 157
- d) 177
- e) 147

$$Q30. \sqrt{(2809.001)} \div 7.98 \times (12.01) + 46.002 = ?$$

- a) 1300
- b) 900
- c) 1000
- d) 1100
- e) 980

$$Q31.\ 18\%\ of\ 256 + 35\%\ of\ 290 - 15\%\ of\ 385 = ?$$

- a) 83
- b) 80
- c) 90
- d) 70
- e) 85

$$032. \sqrt{4090} \times \sqrt{12163 + 49} = (?)$$

- a) 29
- b) 49
- c) 33
- d) 39
- e) 37

$$Q33. \ 8\frac{4}{7} + 9\frac{3}{4} - 3\frac{5}{8} - ? = 6\frac{29}{56}$$

- a) 8
- b) 6
- c) 10
- *d*) 5
- e) 2

$$Q34. \frac{9}{42} \div \frac{108}{63} \times 328 - \frac{5}{7} + \frac{7}{5} = ?$$

- a) 32
- b) 28
- c) 40
- d) 45
- e) 42

Q35.
$$[(16\frac{2}{3}) \times (\frac{45}{39})] / [(3\frac{15}{26}) - (3\frac{4}{13})] = ?$$

- a) 65
- b) 62
- c) 76
- d) 71
- e) 78

- a) 411.13
- b) 412.23
- c) 413.33
- d) 414.43
- e) 415.53

$$Q37. \sqrt{13.3225} = ?$$

- a) 3.45
- b) 3.55
- c) 3.65
- d) 3.75
- e) 3.85

$$Q38.\ 144 \times 7 + 612 \times 4 = ?\% \ of \ 12800$$

- a) 24
- b) 27
- c) 30
- d) 32
- e) 35

- a) 2510
- b) 2630
- c) 2760

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- d) 2890
- e) 3025

$$Q40. \sqrt{5475} \div 4.98 = ?$$

- a) 11
- b) 15
- c) 20
- d) 24
- e) 27

$$Q41.\ 118.07 \times 13.49 + 169.8\% \ of \ 784 = ?$$

- a) 2520
- b) 2610
- c) 2750
- d) 2870
- e) 2930

$$Q42.43.03 \times 27.96 + 11.98 \times \sqrt[3]{42870} = ?$$

- a) 1625
- b) 1705
- c) 1775
- d) 1815
- e) 1855

$$Q43. \{(8.66)^2 \times 13.98\} \div \sqrt{50} = ?$$

- a) 120
- b) 130
- c) 140
- d) 150
- e) 160

Q44. The value of $(0.03125)^{-2/5}$ is

- *a*) 1
- *b*) 2
- c) 3
- d) 4
- e) None of these

Q45. The value of
$$\sqrt{18} + \sqrt{50} - \sqrt{32}$$
 is

a) $4\sqrt{2}$

- b) $3\sqrt{2}$
- c) $2\sqrt{2}$
- $d) \sqrt{2}$
- e) $\sqrt{5}$
- Q46. The value of $(x^{a-b})^c \times (x^{b-c})^a \times (x^{c-a})^b$ is
- *a*) 0
- b) 1
- c) x^{ab}
- $d) x^{bc}$
- e) 3^s
- Q47. The value of $(a^x/a^y)^{x+y} \times (a^y/a^z)^{y+z} \times (a^z/a^x)^{z+x}$ is
- *a*) 0
- b) 1/y
- c) 1
- d) 1/xyz
- e) None of these

Q48. If $x = (\sqrt{126} \times \sqrt{63} \times \sqrt{45}) / (\sqrt{147} \times \sqrt{243})$, then the value of x is

- a) $\sqrt{5}$
- b) $\sqrt{10}$
- c) 10
- d) 5
- *e*) 2

Q49.). The value of question mark (?) in $3/4^{th}$ of $3/5^{th}$ of $2/3^{rd}$ of ? = 3174 is

- a) 10550
- b) 10540
- c) 10580
- d) 1050
- e) None of these

Q50. The value of 1 + 1/(1+1/(1+1/(1+2/3))) is

- a) 21/13
- b) 17/3

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- c) 34/21
- d) 8/5
- e) None of these



Solution

Q1. Option b

$$? = 47 \times 563 / 23 \times 112$$

= 26461 / 2576

Q2. Option A

$$(34.9)^2 \div 7 + \sqrt{?} = 217.02$$

$$\sqrt{?} = 217.02 - 35 \times \frac{35}{7} = 217 - 175 = 42$$

$$? = 42 \times 42 = 1764 \approx 1765$$

O3. Correct Answer is: 1770

$$? - 623.68 = 33\% \text{ of } 3400 + 13\% \text{ of } 170$$

$$= 33 \times 3400 / 100 + 13 \times 170 / 100$$

$$?=1144.1+623.68=1144+624$$

$$= 1768$$

= 1770

Q4. Correct Answer is: 24

$$6832 \div 58 \times ? - 1624.64 = 1064.28$$

$$= 117.79 \times ? - 1625 = 1064$$

$$= 118 \times ? = 1064 + 1625 = 2689$$

$$? = 2689/118 = 22.78$$

= 24.

Q5. Correct Answer is: 63

$$24\%$$
 of $650 - ?\%$ $123.68 = 78.2$

$$24 \times 650 / 100 - ? \times 124 / 100 = 78$$

$$156 - 78 = ? \times 124 / 100$$

$$? \times 124 / 100 = 78$$

$$? = 78 \times 100 / 124 = 62.90$$

= 63.

Q6. Option B

$$.? = 11.25 \times 135/100 + 8.72 \times 463/100$$

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$$= 15.1875 + 40.3 = 55$$

Q7 Option D

$$? = 4830/\sqrt{2314} \times 23 = 4830/48 \times 23$$

$$= 100.625 \times 23$$

- = 2314
- = 2315

Q8 Option D

$$? = 27 \times 169 + 5317$$

$$= 4563 + 5317$$

= 9880

Q9. Option B

$$? = 1527 \times 0.3 + 38 \times 380/100 + 49 \times 0.490$$

$$= 458.1 + 144.4 + 24.01$$

$$= 458 + 144 + 24$$

Q10. Option C

$$? = 3\frac{2}{7} + 6\frac{1}{7} - 2\frac{1}{7} + 13\frac{2}{3}$$

$$= (3+6+13-2) + \left(\frac{2}{7} + \frac{1}{7} - \frac{1}{7} + \frac{2}{3}\right)$$

$$=20+\frac{6+3-3+14}{21}$$

$$=20+\frac{20}{21}$$

= 21

Q11 Option A

= 9.17

= 9

Q12. Option E

$$? = (63.5 \times 8924.19)/100 + (22 \times 5324.42)/100$$

$$= 63.5 \times 89 + 22 \times 53$$

= 5651 + 1166

= 6817

Q13. Option C

$$? - 32.630 = 27 \times 164 + 3739 = 4428 + 3739$$

Like Us: Facebook.com/GovernmentAdda Join Us: Telegram.me/GovtAdda or, ? = 8167 + 33 = 8200= 8935Q14. Option E Q21. Option C $134 \times 3894 / 100 + 38.94 \times 134 / 100$ $.? = 6242 \times 83/100 \times 225 \times 12/100$ $= 134 \times 3900/100 + 39 \times 134/100$ = 139883.22 = 5226 + 52= 5278 = 5280Q22. Option E $2^{0.2} \times 2^{6} \times (2^{3})^{1.3} \times (2^{2})^{0.2} = (2^{3})^{2}$ Q15. Option A $= (2)^{(0.2+6+3.9+0.4)} = 2^{(3\times ?)}$ $(8471 \times 1.65\%) - (9326 \times 0.61\%)$ $3 \times ? = 10.5$ $= 85 \times 1.6 - 93 \times 0.6$? = 10.5/3= 136 - 55.8? = 3.5= 80.2= 80 Q23. Option D $? = (73)^3 = (70 + 3)^3 = (70)^3 + (3)^3 + 3(70)^2$ Q16. Option B $(3) + 3(70)(3)^2$ = 343000 + 27 + 44100 + 1890 $60/100 \times [2920/13 + 10375/18]$ = 389017 $=60/100 \times (225 + 575)$ $= 60 \times 800/100$ Q24.Option D = 480? = 9/8 + 13/7 + 18/5= (315 + 520 + 1008)/280Q17. Option D = 1843/280 $25\% \text{ of } 84 \times 24\% \text{ of } 85 = ?$ = 6.163/280 $21 \times 20.4 = ?$ 428.4 = ?Q25. Option A $2/25 \times 12 = 248.76$ $? = 25 \times 12 \times 248.76$ Q18.Option E $7365 + 29.16 + \sqrt{?} = 7437.16$? = 74628 $\sqrt{?} = 7437.16 - 7394.16$ $\sqrt{?} = 43$ Q26. Option C $(36.01)^3 \times (4096)^{1/2} \times 37.99^2 \div (9^3 \times 75.98^2) = 4^7$? = 1849Or, $4^{?} = [36^{3} \times \sqrt{4096} \times 38^{2}]/9^{3} \times 76^{2}$ or, $(4^3 \times 9^3 \times 4^3 \times 38 \times 38) / (9^3 \times 76 \times 76)$ Q19.Option A $= (4^3 \times 4^3)/(2 \times 2)$ $64 \times 16/256 = 4^{\circ}(? - 3)$ $Or, 4^? = 4^3 \times 4^2 = 4^5$ $4 = 4^{(?-3)}$ 1 = ? - 3? = 4Q27. Option D

Q20. Option C

= 3100 + 5835

 $25 \times 124 + 389 \times 15$

$$= (28850/5) + 6 = 5770 + 6$$
Or, $?^2 = 5776$

$$? = \sqrt{5776} = 76$$

Q28 Option B

$$(35\% \text{ of } 74000) \div ? = (123\% \text{ of } 13.02)^2 \text{ x } 2.01$$

 Or , $(35\times74000)/100 \div ? = [(123\times13)/100]^2 \text{ x } 2$
 or , $25900/? = (15.99)^2 \times 2$
 or , $(25900/?) = 16\times16\times2$
 $? = 25900/(16\times16\times2) = 50.58 = 50$

Q29 Option A

$$4/15 \text{ of } 393 + 7/12 \text{ of } 473$$

= ? $x (1.99 + 1.01)$
or, ? $x 3 = (4/15) x 393 + (7/12) x 480$
or, ? $x 3 = (4/15) x390 + (7/12) x 480$
or, ? $x 3 = 104 + 280$

or. ? = 384/3 = 128 = 127

Q30. Option C

$$\sqrt{2809.001} \div 7.98 \times (12.01)^2 + 46.002 = ?$$
or, $? = \sqrt{2809} \div 8 \times (12)^2 + 46$
or, $? = (53/8) \times (12)^2 + 46$
or, $? = 954 + 46$
 $? = 1000$

Q31. Option C

$$18\%$$
 of $256 + 35\%$ of $290 - 15\%$ of $385 = ?$
Or, $? = 18/100 \times 260 + 35/100 \times 300 - 15/100 \times 400$
 $= 46.8 + 105 - 60 = 151.8 - 60 = 91.8 = 90$

Q32. Option D

$$\sqrt{4090} = 4096 = 64$$
 $\sqrt[3]{12163} = \sqrt[3]{12167} = 23$
 $\sqrt[2]{2} = \sqrt{4090} \times \sqrt[3]{12163} + 49$
 $= 64 \times 23 + 49$
 $= 1472 + 49 = 1521 = (39)^2$
 $\sqrt[2]{39}$

Q33 Option A

$$8\frac{4}{7} + 9\frac{3}{4} - 3\frac{5}{8} - ? = 6\frac{29}{56}$$

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$$0r,? = (8+9-3-6) + \left(\frac{4}{7} + \frac{3}{4} - \frac{5}{8} - \frac{29}{56}\right)$$
$$= 8 + \left[\frac{(32+42-35-29)}{56}\right]$$
$$= 8 + \frac{10}{56} = 8$$

O34. Option C

$$\frac{9}{42} \div \frac{108}{63} \times 328 - \frac{5}{7} + \frac{7}{5} = ?$$

$$0r,? = \frac{9}{42} \times \frac{63}{108} \times 328 - \frac{5}{7} + \frac{7}{5}$$

$$= 41 + \frac{5}{7} - \frac{7}{5} = 40$$

Q35. Option D

$$\frac{\left[\left(16\frac{2}{3}\right) \times \left(\frac{45}{39}\right)\right]}{\left[\left(3\frac{15}{26}\right) - \left(3\frac{4}{13}\right)\right]} = ?$$

$$? = \frac{\left(\frac{50}{3} \times \frac{45}{39}\right)}{\frac{93}{26} - \frac{43}{13}} = \frac{\left(\frac{250}{13}\right)}{\left[\frac{(93 - 86)}{26}\right]}$$

$$= \frac{250}{13} \times \frac{26}{7} = \frac{500}{7} = 71$$

Q36. Option E

$$? = \frac{135 \times 342}{100} - \frac{342 \times 13.5}{100}$$
$$= 461.7 - 46.17 = 415.33$$

Q37.Option C

$$\sqrt{13.3225} = 3.65$$

Q38 Option D

$$\frac{? \times 12800}{100} = 1008 + 2448 = 3456$$

$$? = \frac{3456}{128} = 27$$

Q39 Option C

$$? = \frac{185 \times 1360}{100} + \frac{18.5 \times 1320}{100}$$

$$= 2516 + 244.2 = 2760.2 \approx 2760$$

Q40.Option B

$$? = \frac{\sqrt{5475}}{5} = \frac{74}{5} = 14.8 \approx 15$$

Q41. Option E

$$118.07 \times 13.49 + 169.8\%$$
 of $784 = ?$

$$= 118 \times 13.5 + \frac{170}{100} \times 784$$

$$= 1593 + 1333$$

 ≈ 2930

Q42. Option A

$$? \approx 43 \times 28 + 12 \times 35$$

$$= 1204 + 420 = 1624 \approx 1625$$

Q43. Option 4

$$= \{(8.66)^2 \times 13.98\} \div \sqrt{50}$$

$$= \{74.99 \times 13.98\} \div 7.07$$

$$? = \frac{75 \times 14}{7} = 150$$

Q44. Option D

$$(0.03125)^{-\frac{2}{5}} = \left(\frac{3125}{100000}\right)^{-\frac{2}{5}} = \left(\frac{100000}{3125}\right)^{\frac{2}{5}}$$

$$=\left(\frac{10}{5}\right)^{5\times\frac{2}{5}}=(2)^2=4$$

Q45. Option A

$$\sqrt{18} + \sqrt{50} - \sqrt{32}$$

$$=\sqrt{2\times3\times3}-\sqrt{2\times5\times5}-\sqrt{2\times2\times2\times2\times2}$$

$$=3\sqrt{2}+5\sqrt{2}-4\sqrt{2}$$

$$= 8\sqrt{2} - 4\sqrt{2} = 4\sqrt{2}$$

Q46 Option B

$$(x^{a-b})^c \times (x^{b-c})^a \times (x^{c-a})^b$$

$$= x^{ac-bc} \times x^{ba-ca} \times x^{cb-ab}$$

$$= x^{ac-bc+ba-ca+cb-ab} = x^0 = 1$$

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Q47 option C

$$(a^x/a^y)^{x+y} \times (a^y/a^z)^{y+z} \times (a^z/a^x)^{z+x}$$

$$=(a^{x-y})^{x+y}\times(a^{y-z})^{y+z}\times(a^{z-x})^{z+x}$$

$$= a^{x^2-y^2} \times a^{y^2-z^2} \times a^{z^2-x^2}$$

$$= a^{x^2-y^2+y^2+z^2+z^2-x^2}$$

$$= a^0 = 1$$

Q48 Option B

$$x = (\sqrt{126} \times \sqrt{63} \times \sqrt{45}) / (\sqrt{147} \times \sqrt{243})$$

$$= (\sqrt{2 \times 3 \times 3 \times 7} \times \sqrt{3 \times 3 \times 7})$$

$$\times \sqrt{3 \times 3 \times 5})/(\sqrt{3 \times 7 \times 7}$$

$$\times \sqrt{3 \times 3 \times 3 \times 3 \times 3}$$

$$=(\sqrt{2\times3\times3\times7\times3\times3\times7\times3\times3\times5})/$$

$$\sqrt{3 \times 7 \times 7 \times 3 \times 3 \times 3 \times 3 \times 3}$$

$$=(3 \times 3 \times 3 \times 7)\sqrt{10}/(3 \times 3 \times 3 \times 7) = \sqrt{10}$$

Q49. Option C

$$3/4th \ of \ 3/5th \ of \ 2/3rd \ of \ ? = \ 3174$$

$$? = (3174 \times 4 \times 5 \times 3)/(3 \times 3 \times 2) = 10580$$

Q50. Option C

$$1 + 1/\{1 + 1/[1 + 1/(1 + 1/(1 + 2/3))]\}$$

$$=1 + 1/\{1 + 1/[1 + 1/(1 + 3/5)]\}$$

$$=1 + 1/\{1 + 1/[1 + 5/8]\}$$

$$=1 + 1/\{1 + 1/[1 + 5/8]\}$$

$$=1 + 1/\{1 + 8/3\}$$

$$=1 + (13/21) = 34/21$$

Simplification Questions

$$1.\frac{13}{8} \text{ of } \frac{15}{32} \text{ of } 0.45\% \text{ of } 7268 =?$$

- a) 23.27
- b) 24.57
- c) 25.12
- d) 26.87

$$2.(1036 \times 0.75 + 1128 \times 0.25) \times 3.5 = ?$$

- a) 3216.2
- b)3472.3
- c) 3564.6
- d) 3706.5

$$3.\sqrt{?} = (78 \times 148) \div 481$$

- a) 484
- b) 529
- c) 576
- d) 625

$$4.(5546 \div 47 + 4984 \times 0.25) \div 11 = ?$$

- a) 124
- b) 127
- c) 130
- d) 132

$$5.6\frac{2}{5} \times 5\frac{5}{8} \times 11\frac{11}{14} \div 6\frac{2}{7}$$

- a) 63.5
- b) 64.5
- c) 65.5
- d) 67.5

$$6.\frac{1}{6} of(92)\% of 1\frac{1}{23} of(650) = 85+?$$

- a) 18
- b) 21
- c) 19
- d) 28

$$7.92 \times 576 \div 2\sqrt{1296} = (?)^3 + \sqrt{49}$$

- a) 3
- $(9)^2$
- c) 9
- d) 27

$$8.3\frac{1}{4} + 2\frac{1}{2} - 1\frac{5}{6} = \frac{(?)^2}{10} + 1\frac{5}{12}$$

- a) 25
- *b*) √5
- c) 625
- d) 5

9.
$$(\sqrt{8} \times \sqrt{8})^{\frac{1}{2}} + (9)^{\frac{1}{2}} = (?)^3 + \sqrt{8} - 340$$

- a) 7
- b) 19
- c) 18
- d) 9

$$10.(15 \times 0.40)^{4} \div (1080 \div 30)^{4} \times (27 \times 8)^{4} = (3 \times 2)^{?+5}$$

- a) 8
- *b*) 3
- c) 12
- d) 16

$$11.1664 \times 1.75 + 1008 \times 1.25 - 1220 \times 0.65 = ?$$

- a) 3147
- b) 328<mark>7</mark>
- c) 3379
- d) 3432

12.
$$(?\% of 999) \div 0.9 = 166.5$$

- a) 12
- b) 15
- c) 18
- d) 21

13.
$$\{(157.8)^2 - (117.2)^2\} \times 0.008 = ?$$

- a) 89.32
- b) 92.34
- c) 94.86
- d) 96.12

$$14.82992 \div ? = 76 \times 42$$

- a) 22
- b) 24
- c) 26
- d) 28

15.
$$[\{(486)^2 \div (27)^2\} \times 15] \div 12 = ?$$

- a) 365
- b) 375
- c) 385

d) 405

$$16.(2197)^{-2} \div (28651)^{-3} = 169 \times (13)^{?}$$

- a) 2
- b) 3
- c) 4
- d) 5

$$17.\frac{7}{12} \text{ of } \frac{5}{21} \text{ of } \frac{1}{23} \text{ of } 48\% \text{ of } 28980 =?$$

- a) 84
- b) 96
- c) 102
- d) 112

$$18.\{14641 \div 11\} \times 3.5 = ?$$

- a) 4325.5
- b) 4472.5
- c) 4578.5
- d) 4658.5

$$19.(28)^{4.9} \times (7)^{0.1} \times (2)^{0.2} \div \{(7)^{2.5} \times (2)^{-5}\} = (28)^{?}$$

- a) 3.5
- b) 7.5
- c) 4.5
- d) 6.5

$$20.(28.5\% \text{ of } 144) \times 25 = ? \times 6$$

- a) 171
- b) 172
- c) 173
- d) 174

$$21.(8)^{7.2} \div (512)^{1.6} \times (4096)^{1.2} \div (32768)^{-1} = (8)^{?}$$

- a) 2.4
- b) 2.6
- c) 2.8
- *d*) 3

$$22.45.5\% \ of \ 960 + 13.5\% \ of \ 320 = ?\% \ of \ 3000$$

- a) 8
- b) 12
- c) 16
- d) 20

$$23.\left\{ (13824)^{\frac{2}{3}} \div 16 \right\} \times 7.5 = ?$$

- a) 220
- b) 250

- c) 270
- d) 300

$$24.\left\{6^{3.6} \div 36^{-4.2}\right\}^{\frac{1}{4}} = \sqrt{?}$$

- a) 41616
- b) 43624
- c) 44944
- d) 46656

$$25.\sqrt[3]{12167} \times \sqrt{24025} = ?$$

- a) 3255
- b) 3297
- c) 3565
- d) 3611

$$26.4950 \div 6 + 112 \times 1.75 = ? \times 2$$

- a) 495.5
- b) 510.5
- c) 530
- d) 560.5

$$27.\sqrt[3]{166.375} = ?$$

- a) 11.5
- b) 8.5
- c) 6.5
- d) 5.5

$$28.84.25 \times l44 - 512 \times 7 = ?\% of 1068.5$$

- a) 620
- b) 840
- c) 780
- d) 750

$$29.\sqrt{4096} + \sqrt{13456} = 75 \times ?$$

- a) 2.4
- b) 3.8
- c) 4.2
- d) 5.5

$$30.157\% \ of \ 360 + 66\% \ of \ 275 = 30\% \ of \ ?$$

- a) 2210
- b) 2348
- c) 2489
- d) 2520

$$31. \left[(3024 \div 189)^{\frac{1}{2}} + (684 \div 19)^{2} \right] = (?)^{2} + 459$$

$$a) - 27$$

- b) 29
- c) 31
- d) 841
- 32.4.4 time of $\frac{5}{16}$ of 30% of 216 =?
- a) 81.9
- b) 83.7
- c) 87.3
- d) 89.1
- $33.(0.0729 \div 0.1)^3 \div (0.081 \times 10)^5 \times (0.3 \times 3)^5 = (.9)^{?+3}$
- *a*) 1
- b) 2
- c) 4
- d) 7
- $34. (\sqrt{?}\% \text{ of } \sqrt{1764} \times 5) = 149.8 112$
- $a)\sqrt{18}$
- b) 18
- c) 324
- d) 24

$$35.(27)^2 \times 6 \div 9 + (7)^3 + 71 = (?)^3 - 431$$

- a) 11
- $b) (13)^3$
- c) 13
- $d)(11)^2$

$$36.321 \times 9 \div 0.8 = \sqrt{?} \times 11.25$$

- a)103037
- b) 103039
- c) 103041
- d) 103043

$$37. 78.54 \div 0.03 + 22.8 \div 0.8 - 1470 \times 1.25 = ?$$

- a) 809
- b) 807.5
- c) 805
- d) 802.5

38.
$$44\%$$
 of $475 + 72\%$ of $55 = 12.5\%$ of?

- a) 1978.6
- b) 1982.5
- c) 1988.8
- d) 1990

39.
$$(\sqrt[3]{7})^{\frac{1}{2}} \div (343)^{-\frac{1}{2}} \times (\sqrt[3]{7})^2 = (\sqrt[3]{7})^?$$

- a) 3
- b) 7
- c) 9
- (d) 2

$$40.8\frac{5}{8} \times 3\frac{3}{23} + 7\frac{1}{5} \times 4\frac{2}{9} = ?$$

- b) 57 $\frac{2}{7}$
- c) $53\frac{2}{5}$
- $d) 55 \frac{2}{7}$

$$41. \sqrt{\frac{29585}{29585} + \sqrt{23100}} = ?$$

- a) 18
- b) 20
- c) 16
- d) 22

42.
$$48.5\%$$
 of $7842 + ?\%$ of $1318 = 4515$

- a) 42
- b) 48
- c) 54
- d) 57

$$43.118.257 \times 289.92 + 43.54 \times 171.37 = ?$$

- a) 41500
- b) 41700
- c) 41900
- d) 42100

$$44.\sqrt[3]{226980} = ?$$

- a) 59
- b) 61
- c) 63
- d) 65

$$45.8847256 \div 4446 = ?$$

- a) 1930
- b) 1950

- c) 1970
- d) 1990

46.
$$\frac{252}{?} = \frac{?}{63}$$

- a) 124
- b) 126
- c) 128
- d) 130

$$47. \ \frac{3}{7} \ of \ 504 \ \div 12 + 17 = \sqrt{?}$$

- a) 1225
- b) 1230
- c) 1235
- d) 1220

$$48.82 + 4 \times 3.75 - 16 = ?$$

- a) 6361
- b) 6461
- c) 6561
- d) 666<mark>1</mark>

49.
$$\left\{\sqrt[5]{27}\right\}^3 \times 81 \div \frac{1}{(3)^{\frac{1}{5}}} = (9)^{?}$$

- a) 1
- *b*) 2
- c) 3
- d) 4

$$50.7.85\% \ of \ 1240 + 3.6\% \ of \ 850 = 20\% \ of \ ?$$

- a) 633.5
- b) 635.8
- c) 637.4
- d) 639.7



Solutions

$$Q1.\,Option\,B$$

$$? = \frac{13 \times 15 \times 0.45 \times 7168}{8 \times 32 \times 100} = 24.57$$

Q2. Option D

? =
$$(1036 \times 0.75 + 1128 \times 0.25) \times 3.5$$

= $(777 + 282) \times 3.5 = 1059 \times 3.5 = 3706.5$

Q3. Option C

$$\sqrt{?} = \frac{78 \times 148}{481} = 24$$

$$? = 24^2 = 576$$

Q4. Option A

$$? = \left(\frac{5546}{47} + \frac{4984}{4}\right) \div 11$$

$$=\frac{1364}{11}=124$$

Q5. Option D

$$? = \frac{32}{5} \times \frac{45}{8} \times \frac{165}{14} \times \frac{7}{144}$$

$$=\frac{135}{2}=67.5$$

Q6. Option C

$$650 \times \frac{24}{23} \times \frac{92}{100} \times \frac{1}{6} = 85 + ?$$

$$or$$
, $? = 104 - 85 = 19$

Q7. Option C

$$92 \times 576 \div (2\sqrt{1296})$$

$$=(?)^3+\sqrt{49}$$

$$or, \frac{92 \times 576}{72} = ?^3 + 7$$

$$or,736-7=?^3$$

$$or, \sqrt[3]{729} = 9$$

Q8. Option D

$$(3+2-1-1) + (\frac{1}{4} + \frac{1}{2} - \frac{5}{6} - \frac{5}{12})$$

$$= \frac{(?)^2}{10} = 3 + \left(\frac{3+6-10-5}{12}\right) = \frac{?^2}{10}$$

$$=>3+\frac{6}{12}=\frac{?^2}{10}=>3-\frac{1}{2}=\frac{?^2}{10}$$

$$or ?^2 = \frac{5}{2} \times 10 = 25$$

$$? = 5$$

Q9. Option A

$$(\sqrt{8} \times \sqrt{8})^{\frac{1}{2}} + (9)^{\frac{1}{2}} = (?)^3 + \sqrt{8} - 340$$

$$8^{\frac{1}{2}} + 3 = ?^3 + 8^{\frac{1}{2}} - 340$$

$$or ?^3 = 340 + 3$$

$$?^3 = 343 = 7$$

Q10. Option B

$$(15 \times 0.40)^4 \div (1080 \div 30)^4 \times (27 \times 8)^4 = (3 \times 2)^{?+5}$$

$$or$$
, $(6)^4 \div (36)^4 \times (3^3 \times 2^3)^4 = (3 \times 2)^{?+5}$

or,
$$(3 \times 2)^4 \div (3 \times 2)^8 \times (3 \times 2)^{12} = (3 \times 2)^{?+5}$$

$$or$$
, $(3 \times 2)^{4-8+12} = (3 \times 2)^{2+5}$

$$or, ? + 5 = 8$$

$$or, ? = 3$$

Q11. Option C

$$1664 \times 1.75 + 1008 \times 1.25 - 1220 \times 0.65 = ?$$

$$? = 2912 + 1260 - 793 = 3379$$

Q12. Option B

$$\frac{? \times 999}{100} = 166.5 \times 0.9$$

$$? = \frac{14985}{999} = 15$$

Q13. Option A

$$? = \{(157.8 + 117.2) (157.8 - 117.2)\} \times 0.008$$

? =
$$(275 \times 40.6) \times 0.008 = 11165 \times 0.008$$

= 89.32

Q14. Option C

$$? = \frac{82992}{76 \times 42} = 26$$

Q15. Option D

$$? = \left[\left\{ \frac{486 \times 486}{27 \times 27} \right\} \times 15 \right] \div 12$$

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$$? = \frac{324 \times 15}{12} = 405$$

$$(13^3)^{-2} \div (13^4)^{-3}$$

$$= (13)^{-6} \div (13)^{-12}$$

$$= (13)^{-6+12} = (13)^6 = 169 \times (13)^4$$

$$? = 4$$

Q17. Option A

$$? = \frac{7 \times 5 \times 48 \times 28980}{12 \times 21 \times 23 \times 100} = 84$$

Q18. Option D

$$? = \frac{14641}{11} \times 3.5 = 1331 \times 3.5 = 4658.5$$

Q19. Option B

$$28^{4.9} \times 7^{0.1} \times 4^{0.1} \div (7^{-2.5} \times 4^{-2.5})$$

$$28^{4.9} \times 28^{0.1} \div 28^{-2.5} = 28^{4.5+0.1+2.5}$$

$$\therefore$$
 ? = 7.5

Q20. Option A

$$6 \times ? = \frac{28.5 \times 144}{100} \times 25$$

$$= 41.04 \times 25 = 1026$$

$$\therefore ? = \frac{1026}{6} = 171$$

Q21. Option B

$$8^{7.2} \div (8^3)^{1.6} \times (8^4)^{-1.2} \div (8^5)^{-1}$$

$$= 8^{7.2} \div 8^{4.8} \times 8^{-4.8} \div 8^{-5}$$

$$= (8)^{7.2-4.8-4.8+5} = (8)^{2.6}$$

$$300 \times ?$$

$$Q22. Option C \frac{300 \times ?}{100} = 45.5 \times 9.6 \times 13.5 \times 3.2$$

$$= 436.8 + 43.2 = 480$$

$$\therefore? = \frac{480 \times 100}{3000} = 16$$

Q23. Option C

$$? = \left\{ (24^3)^{\frac{2}{3}} \div 16 \right\} \times 7.5$$

$$= \{24^2 \div 16\} \times 7.5 = 36 \times 7.5 = 270$$

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Q24. Option D

$$\sqrt{?} = \{6^{3.6} \div (6^2)^{-4.2}\}^{\frac{1}{4}}$$

$$= \{6^{3.6} \div 6^{8.4}\}^{\frac{1}{4}} = (6^{3.6+8.4})^{\frac{1}{4}}$$

$$\therefore \sqrt{?} = \{6^{12}\}^{\frac{1}{4}} = 6^3 = 216$$

$$? = (216)^2 = 46656$$

Q25. Option C

$$? = \sqrt[3]{12167} \times \sqrt{24025}$$
$$= 23 \times 155 = 3565$$

Q26. Option B

$$? = \frac{1}{2} \left[\left(\frac{4950}{6} \right) + (112 \times 1.75) \right]$$
$$= \frac{1}{2} (825 + 196) = 1021 = 510.5$$

Q27. Option D

$$\sqrt[3]{166.375} = 5.5$$

Q28. Option D

$$\frac{? \times 1068.5}{100} = 12132 - 3584$$
$$\therefore ? = \frac{8548 \times 100}{19684} = 800$$

Q29. Option A

$$75 \times ? = 64 + 116 = 180$$

$$\therefore ? = \frac{180}{75} = 2.4$$

Q30. Option C

$$\frac{30 \times ?}{100} = \frac{157 \times 360}{100} + \frac{66 \times 275}{100}$$

$$30 \times ? = 56520 + 18150 = 74670$$

$$\therefore? = \frac{74670}{30} = 2789$$

Q31. Option B

$$(16)^{\frac{1}{2}} + (36)^2 = ?^2 + 459$$

$$?^2 = 4 + 1296 - 459 = 841$$

$$? = \pm 29$$

Q32. Option D

$$4.4 \times \frac{5}{16} \times \frac{30}{100} \times 216$$

 $= 4.4 \times \frac{5}{16} \times 64.8 = 89.1$

Q33. Option A

$$(0.729)^3 \div (0.81)^5 \times (0.9)^5 = (0.9)^{?+3}$$

$$[(0.9)^3]^3 \div [(0.9)^2]^5 \times (0.9)^5 = (0.9)^{?+3}$$

$$(0.9)^9 \div (0.9)^{10} \times (0.9)^5 = (0.9)^{?+3}$$

$$(0.9)^{9-10+5} = (0.9)^{?+3}$$

Q34. Option D

$$\left(\sqrt{\frac{?}{100}} \, of \, 42 \times 5\right) = 37.8$$

$$\left(\frac{\sqrt{?}}{10} \text{ of } 42 \times 5\right) = 37.8$$

$$4.2\sqrt{?} \times 5 = 37.8$$

$$21\sqrt{?} = 37.8$$

$$\sqrt{?} = 1.8$$

$$? = 3.24$$





Q35. Option A

$$(729 \times 6 \div 9) + 343 + 71 + 431 = ?^3$$

$$486 + 343 + 71 + 431 = ?^3$$

$$?^3 = 1331 = (11)^3$$

$$\sqrt{?} = \frac{321 \times 9}{0.8 \times 11.25} = 321$$

$$? = (321)^2$$

Q37. Option A

$$? = 2618 + 28.5 - 1837.5 = 809$$

$$\frac{12.5 \times ?}{100} = \frac{44 \times 475}{100} + \frac{72 \times 55}{100}$$

$$= 209 + 39.6 = 248.6$$

$$\therefore? = \frac{24860}{12.5} = 1988.8$$

Q39. Option B

$$7^{\frac{1}{6}} \div 7^{-\frac{3}{2}} \times 7^{\frac{2}{3}} = (7)^{\frac{1}{6} + \frac{3}{2} + \frac{2}{3}} = 7^{\frac{7}{3}}$$

$$(\sqrt[3]{7})^{\frac{1}{2}}$$

Q40. Option D

$$? = \frac{69}{8} \times \frac{72}{23} + \frac{36}{5} \times \frac{38}{9}$$

$$= 27 + \frac{152}{5} = \frac{135 + 152}{5} = \frac{287}{5} = 57\frac{2}{5}$$

$$\sqrt{172 + 152} = \sqrt{324} = 8$$

Q42. Option C

$$\frac{1320 \times ?}{100} = 4515 - \frac{48.5 \times 7840}{100}$$

$$= 4515 - 3800 = 715$$

$$= 4515 - 3800 = 715$$

$$\therefore ? = \frac{71500}{1320} = 54.16 \approx 54$$

Q43. Option B

$$? \approx 118.25 \times 290 + 43.5 \times 170$$

$$34292.5 + 7395$$

$$41687.5 \approx 41700$$

Q44. Option B

$$? = \sqrt[3]{226980} \approx 61$$

Q45. Option D

$$? \approx \frac{8847256}{4446} = 1989.936 \approx 1990$$

Q46. Option B

$$?^2 = 252 \times 63$$

$$= 9 \times 7 \times 4 \times 7 \times 9$$

$$= (2 \times 7 \times 9)^2$$

$$\therefore ? = (2 \times 7 \times 9) = 126$$

Q47. Option A

$$18 + 17 = 35$$

$$? = 35^2 = 1225$$

Q48. Option C

$$\sqrt{?} = 82 + 15 - 16 = 81$$

$$\therefore? = (81)^2 = 6561$$

Q49. Option C

$$27^{\frac{3}{5}} \times 3^4 \div (3)^{-\frac{1}{5}}$$

$$(3)^{\frac{9}{5}+4+\frac{1}{5}} = (3)^6 = (9)^3$$

$$2 - 3$$

Q50. Option D

$$\frac{20 \times ?}{100} = \frac{7.85 \times 1240}{100} + \frac{3.6 \times 850}{100}$$

$$= 97.34 + 30.6 = 127.94$$

$$\therefore ? = \frac{12794}{20} = 639.7$$



Approximation Questions

 $1. 95^{3.7} \div 95^{0.9989} = 95^{?}$

 $2. \sqrt{10000} + \frac{3.001}{4.987} \text{ of } 1891.992 = ?$

 $3.\ 0.0004 \div 0.0001 \times 36.000009 = ?$

4. 137% of 12345 = ?

(1) 17000 (2) 15000 (3) 1500 (4) 14300 (5) 6300

 $5.\ 3739 + 164 \times 27 = ?$

(1) 102400 (2) 4000 (3) 8200

 $6.447.75 \div 28 \times 4.99 = ?$

(1) 60

(2) 70 (3) 72 (4) 80

(5) 75

 $7. (3.5)^2 \times 19.25 + ? = 275$

(1) 15 (2) 20 (3) 30 (4) 28

(5) 40

8. 85% of $225 + 32.91 \times 5.01 = ?$

- (1) 340
- (2) 355
- (3) 375
- (4) 345
- (5) 370

- 9. $(15.96)^2 + 75\%$ of 285 = ?
- (1) 435 (2) 485 (3) 440

- (4) 420
- (5) 470

- $10.\ 1679 \div 14.95 \times 5.02 = ?$
- (1) 540
- (2) 525
- (3) 545
- (4) 565
- (5)520

- 11. $63.9872 \times 9449.8780 \div 243.0034 = (?)^2$
- (1) 2489 (2) 2500 (3) 50 (4) 45 (5) 150

- 12.5237.897 6629.010 + 7153.999 2205.102 = ?
- (1) 6340
- (2) 4688
- (3) 5240
- (4) 3558
- (5)6290
- $13.4985.0346 \div 215.987 3768.112 \div 206.868 = ?$
- $(1) \, 8$
- (3)18
- (4)11
- (5) 15

- $14.\sqrt{956240} = ?$

- (1) 979 (2) 864 (3) 1009
 - (4) 647
- (5)783
- 15.459% of 849.947 + 266% of 6284.012 1486.002 = ?

- $(1) 20330 \qquad (2) 12640 \qquad (3)15000$
- (4) 22160
- (5) 19130

- $16.6,23,898 \times 99 = ? \times 60,000$
- (1) 1000 (2) 1030 (3) 1050
- (4) 1065
- (5) 1010

- $17. \frac{4}{5} \times \frac{3}{7} \div \frac{6}{7} \div \frac{5}{9} = ?$
 - $(1) \frac{9}{17} \qquad (2) \frac{20}{49} \qquad (3) \frac{18}{25}$
- $(4)^{\frac{1}{2}}$
- $(5)^{\frac{4}{7}}$

- $18. (399.98)^2 = ?$
- (1) 160000 (2) 15999 (3) 1600
- (4) 1599
- (5) 16000

- $19. \sqrt{624.9995} + (4.9989)^2 = ? \div \frac{1}{4.9900865}$
- (1) 6
- (2) 50
- (3) 10
- (4) 125
- (5) 15

- $20.989.001 + 1.00982 \times 76.792 = ?$
- (1) 1000
- (2) 1100 (3) 1065
- (4) 110 (5) 100

- $21.\frac{3}{7} \times \frac{4}{9} \times \frac{2}{5} \times 3719 = ?$
- (1) 341

- (2) 283 (3) 274 (4) 301 (5) 288
- $22.\ 0.008 + 6.009 \div (0.7)^2 = ?$
- (1) 21
- (2) 6
- (3) 12
- (4) 8
- (5) 18

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$$23. (\sqrt[3]{795657} \times 7) \div (3.8 \times 5.5) = ?$$

- (1) 48
- (2) 22
- (3) 43
- (4) 26
- (5)31

$$24.98 \times 785 \div (285)^2 = ?$$

- (1) 0.3
- (2) 1.8
- (3) 2.2
- (4) 0.9
- (5) 0.08

$$25. \sqrt{749} \times 0.56 + 14.38 = ?$$

- (1) 30
- (2) 35
- (3)42
- (4) 25
- (5)45

$$26.459.008 + 3.0056 \times 88.862 = ?$$

- (1) 738
- (2)725
- (3) 695
- (4) 752
- (5)666

$$27. (621.52)^2 = ?$$

- (1) 386300 (2) 379300
- (3) 398300
- (4) 365300
- (5) 356300

$$28.\ 561204 \times 58 = ? \times 55555$$

- (1) 606 (<mark>2) 646 (3</mark>) 556 (4) 716 (5) 586
- 29. $(444\% \text{ of } 531) \div 972 = ?$
- (1) 4.5 (2) 0.5
- (3) 2.5 (4) 8.5
- (5) 6.5

$$30. (9321 + 5406 + 1001) \div (498 + 929 + 660) = ?$$

- (1) 13.5
- (2) 4.5
- (3) 16.5
- (4) 7.5
- (5) 10.5

$$31. (11.49)^4 = ?$$

- (1) 15544
- (2) 16729
- (3) 17430
- (4) 18443
- (5) 19031

$$32. (2198 - 1347 - 403) \div (159 - 113 - 27) = ?$$

- (1) 15
- (2) 24
- (3)37
- (4)49
- (5)53

33.
$$(825 \% \text{ of } 330) \div 507 = ?$$

- (1) 51
- (2) 11
- (3) 17
- (4) 23
- (5) 27

$$34. \sqrt{8888888} \times 1.486 = ?$$

- (1) 1200
- (2) 1000 (3) 1600
- (4) 1400
- (5) 800

- (1) 28450
- (2) 4000
- (3) 1600
- (4) 14225
- (5) 4210

$$36. (47\% \text{ of } 1442 - 36\% \text{ of } 1412) \div 63 = ?$$

- (1) 4
- (2)5
- (3) 3
- (4) 6
- (5) 1

37.
$$\sqrt{7921} - \sqrt{2070.25} \times \frac{1}{4} = ?$$

- (1) 11
- (2) 14
- (3) 15
- (4)9
- (5) 13

$$38. (341789 + 265108) \div (8936 - 3578) = ?$$

- (1) 150
- (2) 113
- (3) 135
- (4) 100
- (5) 125

$$39.29\% \text{ of } 725 = 60\% \text{ of } 315 + ?$$

- (1) 28
- (2) 30
- (3) 15
- (4) 18
- (5) 21

$$40.\ 1595 \div 25 \times 36.5 = ?$$

- (1) 2459
- (2) 2329
- (3) 2359
- (4) 2429
- (5) 2349

$$41.63251 \times 82 = ? \times 42105$$

- (1) 101
- (2) 123
- (3) 147
- (4) 165
- (5)189

42.
$$\sqrt{42111} = ?$$

- (1) 240
- (2) 270
- (3) 330
- (4) 290
- (5)310

$$43. (54.78)^2 = ?$$

- (1) 3000 (2) 3300
- (3) 3500
- (4) 3700
- (5)3900

$$44. (7171 + 3854 + 1195) \div (892 + 214 + 543) = ?$$

- (1) 13
- (2) 18
- (3) 3
- (4) 26
- (5)7

$$45. (562\% \text{ of } 816) + 1449 = ?$$

- (1) 4145
- (2) 5675 (3) 6035
- (4)7325
- (5)8885

46. $8888888 \div 88 \div 8 = ?$

- (1) 80800
- (2) 1047
- (3) 1263
- (4)70600
- (5) 1526

$$47. 193.999 + 228.008 + ? + 422.005 = 1168.01$$

- (1) 226
- (2) 484
- (3) 168
- (4) 196
- (5)324

$$48.\ 27.8 \times 28.74 \times 17.3 = ?$$

- (1) 13822 (2) 12546
- (3) 10228
- (4) 15183
- (5) 14995

49.
$$1\frac{5}{7} \times 6\frac{12}{13} \times 5\frac{8}{9} = ?$$

- (1) 110
- (2)70
- (3)30
- (4) 20
- (5) 50

$$50.\ 16.8\% \ of \ 222 \times 12.1\% \ of \ 923 = ?$$

- (1) 3325
- (2) 5085
- (3) 2925
- (4) 4165
- (5) 6245



Q1. Option (5) $95^{?} = 95^{3.7} \div 95^{0.9989}$

 $95^? = 95^{3.7 - 0.9989} = 95^{2.7011}$

 $? \approx 2.7$

Q2. Option (2)

 $? \approx \sqrt{10000} + \frac{3}{5} \times 1892$

= 100 + 1135.2

 $= 1235.2 \approx 1230$

$$? \approx \frac{0.0004}{0.0001} \times 36 = 4 \times 36$$

 $= 144 \approx 145$

$$Q4.\ Option\ (1)$$

$$? = 12345 \times \frac{137}{100}$$

$$= 16912.65 \approx 17000$$

Q5. Option(3)

$$= 8167 \approx 8200$$

Q6. Option(4)

Taking approximate integral values we have,

$$? \approx 448 \div 28 \times 5$$

$$\frac{448}{28} \times 5 = 80$$

$$(3.5)^2 + 19.95 + ? = 275$$

$$12.25 \times 19.95 + ? = 275$$

$$? = 275 - 235.81$$

$$= 39.18 \approx 40$$

Q8. Option(2)

$$? = 85\% \text{ of } 225 + 32.91 \times 5.01$$

$$\approx 85\%$$
 of $225 + 33 \times 5$

$$\approx \frac{85 \times 225}{100} + 33 \times 5$$

$$= 191.25 + 165$$

$$= 356.25 \approx 355$$

$$? = (15.96)^2 + 75\% \text{ of } 285$$

$$P = (15.96)^2 + 75\%$$

$$\approx (16)^2 + \frac{75 \times 285}{100}$$

$$= 256 + 213.75$$

$$\approx 469.75 = 470$$

Q10. Option(4)

$$? = 1679 \div 14.95 \times 5.02$$

$$\approx 1680 \div 15 \times 5$$

$$\approx \frac{1680}{15} \times 5 = 560 \approx 565$$

Q11. Option (3)

$$(?)^2 = 63.9872 \times 9449.8780 \div 243.0034$$

Taking approximate integral values,

$$(?) = 64 \times 9450 \div 240$$

$$\approx \frac{64 \times 9450}{240} = 2520 \approx 2500$$

$$? = \sqrt{2500} = 50$$

Q12. Option (4)

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$$\approx 5238 - 6629 + 7154 - 2205$$

$$\approx (5238 + 7154) - (6629 + 2205)$$

Q13. Option (2)

$$? = 4985.0346 \div 215.987 - 3768.112 \div 206.868$$

$$\approx 4985 \div 216 - 3768 \div 207$$

$$= 23.078 - 18.202$$

$$= 4.876 \approx 5$$

Q14. Option (1)

$$\sqrt{956240} \approx 977.8 \approx 979$$

Q15. Option (5)

$$? = 459\% \text{ of } 849.947 + 266\% \text{ of } 6284.012 - 1486.002$$

$$\approx \frac{460 \times 850}{100} + \frac{260 \times 6280}{100} - 1486$$

$$= 3910 + 16328 - 1486 = 18752$$

This can be treated approximate to 19130.

$$Q16. \ Option(2)$$

$$? = \frac{623898 \times 99}{60000} = 1029.43 \approx 1030$$

Q17. *Option* (3)

$$? = \frac{4}{3} \times \frac{3}{7} \div \frac{6}{7} \div \frac{5}{9}$$

$$=\frac{4}{5} \times \frac{3}{7} \times \frac{7}{6} \times \frac{9}{5} = \frac{18}{25}$$

18. Option (1)

$$(399.98)^2 = ?$$

$$\approx (400)^2 = 160000$$

Q19. Option (3)

$$\sqrt{624.9995} + (4.9989)^2$$

Taking approximate values,

$$\sqrt{625} + (5)^2 \approx ? \div \frac{1}{5}$$

$$25 + 25 \approx ? \times 5$$

$$? = \frac{50}{5} = 10$$

$$989.001 + 1.00982 \times 76.792 = ?$$

$$? \approx 989 + 1 \times 77$$

$$= 989 + 77 = 1066 \approx 1065$$

Q21. Option (2)

$$? = \frac{3}{7} \times \frac{4}{9} \times \frac{2}{5} \times 3719 \approx 283$$

$$? = 0.008 + 6.009 \div (0.7)^2$$

$$= 0.008 + \frac{6.009}{0.7 \times 0.7}$$

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$$= 0.008 + 12.26 = 12.27 \approx 12$$

$$? \approx (92 \times 7) \div (3.8 \times 5.5)$$

$$= 644 \div 20.9 = 30.81 \approx 31$$

$$\sqrt[3]{95657} \approx 92$$

Hence, we can choose 31 as our answer.

Q24. Option (4)

$$? = \frac{98 \times 785}{285 \times 285} = 0.94 \approx 0.9$$

Q25. Option (1)

$$? = \sqrt{749} \times 0.56 + 14.38$$

$$\approx 27 \times 0.6 + 14.38 [0.56 \approx 0.6]$$

$$\approx 16.2 + 14.38$$

$$\approx 30.58 \approx 30$$

$$? \approx 459 + 3 \times 89$$

$$[459.008 \approx 459, 88.862 \approx 89]$$

$$\approx 459 + 267 = 726 \approx 725$$

Q27. Option(1)

$$? = (621.52)^2$$

$$\approx 622 \times 622 = 386884 \approx 386300$$

 $Required\ answer = 386300.$

$Q28. \ Option(5)$

$$561204 \times 58 = ? \times 55555$$

$$? = \frac{561204 \times 58}{55555} = 585.90 \approx 586$$

$$? = \left(531 \times \frac{444}{100}\right) \div 972$$

$$\approx 2357.64 \div 972 = 2.42 \approx 2.5$$

$$? = (9321 + 5406 + 1001) \div (498 + 929 + 660)$$

$$= 5728 \div 2087 = 7.53 \approx 7.5$$

$$? = (11.49)^4 = 17429.30 \approx 17430$$

Q32. Option(2)

$$? = \frac{2198 - 1347 - 403}{159 - 113 - 27}$$

$$= \frac{448}{19} = 23.58 \approx 24$$

$$? = \left(330 \times \frac{825}{100}\right) \div 507$$

$$=\frac{2\cancel{7}22.50}{\cancel{507}}=5.369\approx 5$$

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$$Q34. \ Option(4)$$
 $? = \sqrt{888888} \times 1.486$
 $\approx 943 \times 1.5 = 1414.5$
 $Nearest \ answer = 1400$
 $Q35. \ Option(5)$
 $? = 564.666 + 82.5091$

? =
$$564.666 + 82.5091 \times 44.581 - 34.111$$

 $\approx 565 + 82.5 \times 45 - 34$

$$= 4243.5$$

 $Approximate\ answer=4210$

Q36. Option(3)

$$? = \left(1442 \times \frac{47}{100} - \frac{1412 \times 36}{100}\right) \div 63$$

$$= (677.74 - 508.32) \div 63$$

$$= \frac{169.42}{63} = 2.689 \approx 3$$

$$? = (\sqrt{7921} - \sqrt{2070.25}) \times \frac{1}{4}$$

$$= (89 - 45.5) \times \frac{1}{4}$$

$$= \frac{43.5}{4} = 10.875 \approx 11$$

$$? = (341789 + 265108) \div (8936 - 3578)$$
$$= 606897 \div 5358 = 113.27 \approx 113$$

$$\frac{725 \times 29}{100} = \frac{315 \times 60}{100} + ?$$
=> 210.25 = 189+?
=> ? = 210.25 - 189

$$= 21.25 \approx 21$$

Q40. Option (2)
? =
$$1595 \div 25 \times 36.5$$

$$= \frac{1595}{25} \times 36.5 = 2328.7 \approx 2329$$

$$63251 \times 82 = ? \times 42105$$

$$? = \frac{63251 \times 82}{42105} = 123.182 \approx 123$$

Q42. Option (4)

$$? = \sqrt{84111} \approx \sqrt{84100} = 290$$

$$(54.78)^2 \approx (55)^2 = 3025$$

$$Approximate\ answer = 3000$$

$$? = (7171 + 3854 + 1195) \div (892 + 214 + 543)$$

 $= 12220 \div 1649 = 7.41 \approx 7$

$$? = \left(\frac{816 \times 562}{100}\right) + 1449$$

$$= 4585.92 + 1449 = 6034.92 \approx 6035$$

$$? = \frac{888888}{88 \times 8} = 1262.625 \approx 1263$$

$$193.999 + 228.008 + ? + 422.005 = 1168.01$$

$$\approx 194 + 228 + ? + 422 \approx 1168$$

$$844+? \approx 1168$$

$$? \approx 1168 - 844 = 324$$

$$? = 27.8 \times 28.74 \times 17.3$$

$$= 13822.2156 \approx 13822$$

$$Q49. \ Option(2)$$

$$? = \frac{12}{7} \times \frac{90}{13} \times \frac{53}{9} = 69.89 \approx 70$$

$$? = 222 \times \frac{17}{100} \times 923 \times \frac{12}{100}$$

Approximation Questions

$$Q51. (4576 + 3286 + 5639) \div (712 + 415 + 212) = ?$$

- 1) 18
- (2) 22 (3) 34 (4) 10 (5) 46

$$Q52.675.456 + 12.492 \times 55.671 = ?$$

- (1)971
- (2) 1071 (3) 1171 (4) 1271 (5) 1371

$$Q53. (447.2)^2 = ?$$

$$Q54.4374562 \times 64 = ? \times 7777$$

- (1) 360

- (2) 3600 (3) 36000 (4) 360000 (5) 3600000

$$Q55. (872\% \text{ of } 659) \div 543 = ?$$

- (1) 17
- (2) 11 (3) 21 (4) 27 (5) 31

$$Q56. \sqrt[3]{1500} = ?$$

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- (1) 11
- (3) 15
- (4) 19 (5) 44

$$Q57. \ 1\frac{3}{5} \times 2\frac{1}{7} \times 7\frac{1}{3} = ?$$

- (1) 17
- (2) 13 (3) 9
- (4) 29 (5) 25

$$Q58. 18.999 \times 12.005 \times 25.998 = ?$$

- (1) 4860
- (2) 6470 (3) 3320 (4) 5930
- (5)4590

Q59.
$$11.5\%$$
 of $666 \times 18.3\%$ of $888 = ?$

- (1) 15608
- (2) 12446 (3) 10520 (4) 18338

- (5) 11542

$$Q60.\ 2898 \div 22 \div 2 = ?$$

- (1) 278
- (2) 52 (3) 66 (4) 43
- - (5) 263

$$Q61.\ 175 \times 28 + 275 \times 27.98 = ?$$

- (1) 11800 (2) 12600 (3) 12800 (4) 11600
- (5) 12200

$$Q62.324.995 \times 15.98 \div 4.002 + 36.88 = ?$$

- (1) 1300
- (2) 1230 (3) 1440
- (4) 1380 (5) 1340

$$Q63.\ 1164 \times 128 \div 8.008 + 969.007 = ?$$

- (1) 18800 (2) 19000 (3) 19600 (4) 19200
- (5) 18600

$$Q64.\sqrt{624.98} + \sqrt{729.25} = ?$$

- (1)58
- $(2) 56 \qquad (3) 52$
- (4) 63
- (5)61

$$Q65.69.008\% \text{ of } 699.998 + 32.99\% \text{ of } 399.999 = ?$$

- (1)615
- (2)645
- (3) 675
- *(4) 715 (5) 725*

$Q66.7999.99 + 72 \times 49.99 = ?$

- (1) 12000 (2) 12600 (3) 12500 (4) 11600
- (5) 11000

$$Q67. (25.01)^2 - (15.99)^2 = ?$$

- (1) 361
- (2) 381 (3) 369
- (4) 375
- (5) 356

$$Q68.380 \times 12.25 - 365 \div 15 = ?$$

- (1) 4500
- (2) 4550 (3) 4800
- (4) 4850
- (5) 4630

$$Q69.\ 180\% \ of \ 25501 + 50\% \ of \ 28999 = ?$$

- (1) 62400 (2) 64000 (3) 60400 (4) 64200 (5) 61600

$$Q70.\ 171.995 \times 14.995 \div 25 = ?$$

- (1) 105
- (2) 115
- (3) 110
- (4) 125
- Join Us: Telegram.me/GovtAdda (5) 120

 $Q71.\ 1580.05 \times 23.98 = ?$

- (1) 36900 (2) 36800 (3) 37500 (4) 37900
- (5) 37200

 $Q72.77.077 \div 7.07 \times 6.08 = ?$

- (1) 57

- (2) 46 (3) 48 (4) 77
- (5)66

 $Q73. (16.01)^2 - (8.99)^2 = ?$

- (1) 175
- (2) 180 (3) 170
- (4) 165
- (5) 185

Q74.171% of 399 = ?

- (1) 740
- (2) 720 (3) 680
- *(4) 640 (5) 620*

 $Q75. \sqrt{224} \times \sqrt{785} = ?$

- (1) 400
- (2) 420
- (3) 440
- (4) 405
- (5)435

 $Q76. 23.999 \times 9.004 \times 16.997 = ?$

- (1) 3200 (2) 4100 (3) 2700 (4) 3700
- (5) 4500

 $Q77.5\frac{7}{9}\times8\frac{4}{5}\times9\frac{2}{3}=?$

- (1) 490
- (2) 590 (3) 540
- (4) 460
- (5) 520

 $Q78.5940 \div 28 \div 6 = ?$

- (1) 40
- (2) 35 (3) 46 (4) 52
- (5)27

 $Q79.\ 15.5\% \ of \ 850 + 24.8\% \ of \ 650 = ?$

- (1) 295
- (2) 330
- (3)270
- (4) 375
- (5) 220

 $Q80. \sqrt{2230} = ?$

- (1) 54
- $(2) 59 \qquad (3) 41$
- (4) 37
- 5) 47

Q81. 15.5% of 323 - 20.8% of 198 = ?

- (1) 12
- (2) 5
- (3) 15
- (4) 3
- (5)90

 $Q82.\ 3058 \div 27 \times 3 = ?$

- (1) 360
- (2) 348
- (3) 340
- (4) 330
- (5) 321

 $Q83. (3.58)^2 \times (1.75)^2 = ?$

- (1) 25
- (2) 40 (3) 30 (4) 35 (5) 50

 $Q84. \sqrt{5138} \div \sqrt{36} = ?$

- (3) 12
- (4) 18 (5) 26

 $Q85.\ 37.5 \times 34.9 \div 2.75 = ?$

- (1) 476
- (2) 491
- (3) 464
- (4) 453
- (5) 486

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 $Q86.\ 18\%\ of\ 609 + 27.5\%\ of\ 450 = ?$

- (1) 220
- (2) 233
- (3) 267
- (4) 248
- (5) 274

 $Q87.3942 \div 64 \div 3 = ?$

- (1) 29
- $(2) 32 \qquad (3) 21$
- (4) 17
- (5) 11

 $Q88. \ 2\frac{3}{10} \times 4\frac{6}{7} \times 7\frac{1}{2} = ?$

- (1) 68
- (2) 72 (3) 93
- (4) 84
- (5) 101

 $Q89.\ 12.564 \times 22.009 \times 17.932 = ?$

- (1) 4901 (2) 4895 (3) 4800

- (4) 4959
- (5) 4350

Q90. 16.978 + 27.007 + 36.984 - 12.969 - 9.003 = ?

- (1)72
- (2) 42 (2) 60
- (4) 51
- (5) 65

 $Q91.8399.999 \div 375.002 \times 14.996 = ?$

- (1) 565
- (2) 225
- (3) 335
- (4) 625
- (5) 455

 $Q92. \sqrt{?} = 37.0005$

- (1) 1150
- (2) 1220 (3) 1570 (4) 1480 (5) 1370

Q93. 14.998% of 619.999 = ?

- (1) 95
- (2) 80 (3) 115
- (4) 105
- (5) 75

 $Q94. 11.003 \times 19.998 \times 9.010 = ?$

- (1) 1710 (2) 1680 (3) 1800 (4) 1980 (5) 1750

 $Q95.\ 1088.88 + 1800.08 + 1880.80 = ?$

- (1) 3950 (2) 4770 (3) 4620
- (4) 5040
- (5) 6810

 $Q96.1548.45 + 3065.15 \div 15.058 = ?$

- (1) 1700 (2) 1650 (3) 1840 (4) 1750 (5) 1950

 $Q97. \ 6\frac{2}{5} \text{ of } 248.65 = ? \text{ of } 2398.59$

- $(1)^{\frac{2}{5}}$
- $(2)\frac{1}{4}$ $(3)\frac{1}{2}$ $(4)\frac{1}{3}$ $(5)\frac{2}{3}$

Q98.39% of 695 = 10% of ?

- (1) 2800
- (2) 2400 (3) 3200
- *(4) 31000 (5) 2500*

 $Q99.6\sqrt{2} + 14.275 = ? of 196.35$

- $(1) \frac{1}{3}$

- $(2)\frac{1}{4}$ $(3)\frac{1}{8}$ $(4)\frac{1}{5}$ $(5)\frac{1}{2}$

 $Q100. \ 1524.79 \times 19.92 + 495.26 = ?$

- (1) 33,000 (2) 78,535 (3) 31,000 (4) 26,575

- (5) 34,000

Solutions

$$? = (4576 + 3286 + 5639) \div (712 + 415 + 212)$$
$$= 13501 \div 1339 = 10.08 \approx 10$$

$$? = 675.456 + 12.492 \times 55.671$$

$$\approx 675 + 12.5 \times 56$$

$$= 675 + 700 \approx 1375 \approx 1371$$

$$? \approx (447)2 = 199809 \approx 200000$$

$$? = \frac{4374562 \times 64}{7777} = 35999.99 \approx 36000$$

Q55. Option (2)

$$? = \frac{659 \times 872}{100} \div 543 = 10.58 \approx 11$$

$$? = \sqrt[3]{1500} \approx 11.4$$

$$? = \frac{8}{5} \times \frac{15}{7} \times \frac{22}{3} = 25.142 \approx 25$$

$$? = 18.999 \times 12.005 \times 25.998$$

$$\approx 19 \times 12 \times 26 \approx 5928 \approx 5930$$

? = 666
$$\times \frac{11.5}{100} \times 888 \times \frac{18.3}{100} = 12446.18 \approx 12446$$

$$Q60. \ Option(3)$$

$$? = \frac{2898}{22 \times 2} = 65.863 \approx 66$$

Q61. Option (2)

$$Q61.\ Option\ (2)$$
 $? = 175 \times 28 + 275 \times 27.98$

$$\approx 175 \times 28 + 275 \times 28$$

$$= 28 (175 + 275)$$

$$= 28 \times 450 = 12600$$

$$? \approx 325 \times 16 \div 4 + 37$$

$$=\frac{325\times16}{4}+37$$

$$= 1300 + 37 = 1337 \approx 1340$$

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

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

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

$$? = \sqrt{624.98} + \sqrt{729.25}$$

$$\approx \sqrt{625} + \sqrt{729}$$

$$= 25 + 27 = 52$$

$$? \approx \frac{700 \times 69}{100} + \frac{400 \times 33}{100}$$

$$= 483 + 132 = 615$$

$$\approx 8000 + 72 \times 50$$

$$= 8000 + 3600 = 11600$$

$Q67. \ Option(3)$

$$\approx 25^2 - 16^2$$

$$= (25 + 16)(25 - 16) = 41 \times 9 = 369$$

Q68. Option (5)

$$? = 380 \times 12.25 - \frac{365}{15}$$

$$=4655-24.33=4630.67\approx4630$$

Q69. Option (3)

$$? \approx \frac{180 \times 25501}{100} + \frac{28999 \times 50}{100}$$

$$\approx 60401.2 = 60400$$

Q70. Option (1)

$$? \approx 172 \times 15 \div 25$$

$$=\frac{172 \times 13 \div 23}{25} = 103.2 \approx 105$$

Q71. Option(4)

$$? \approx 1580 \times 24 = 37920 \approx 37900$$

$$? \approx \frac{77}{7} \times 6 = 66$$

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$$? \approx 16^2 - 9^2$$

$$= (16 + 9)(16 - 9) = 25 \times 7 = 175$$

$$? \approx \frac{170 \times 400}{100} = 680$$

$$? \approx \sqrt{225} \times \sqrt{784} = 15 \times 28 = 420$$

$$? = 23.999 \times 9.004 \times 16.997$$

$$\approx 24 \times 9 \times 17 = 3672 \approx 3700$$

$$Q77.\ Option\ (1)$$

$$? = 5\frac{7}{9} \times 8\frac{4}{5} \times 9\frac{2}{3}$$

$$= 6 \times 9 \times 9 = 486 \approx 490$$

$$? = 5940 \div 28 \div 6$$

$$=\frac{5940}{28\times6}=35.35\approx35$$

$$? = \frac{850 \times 15.5}{100} + \frac{650 \times 24.8}{100}$$

$$= 131.75 + 161.20$$

$$= 292.95 \approx 295$$

Q80. Option (5)

$$47 \times 47 = 2209$$

$$\sqrt{2230} \approx 47$$

$$Q81. \ Option(5)$$

$$? = 15.5 \times \frac{323}{100} + 198 \times \frac{20.8}{100}$$

$$= 50.06 + 41.18 = 91.24 \approx 90$$

Q82. Option(3)

Q82. Option(3)
$$? = \frac{3058}{27} \times 3 \approx 340$$

$$? = (3.55)^2 + (1.75)^2$$

$$= 12.81 \times 3.06 = 39.23 \approx 40$$

Q84. Option (3)

$$? \approx \frac{72}{6} = 12$$

$$Q85$$
. Option (1)

$$? = \frac{37.5 \times 34.9}{2.75} = 475.90 \approx 476$$

$$? = \frac{18 \times 609}{100} + \frac{27.5 \times 450}{100}$$
$$= 109.62 + 123.75 = 233.37 \approx 233$$

$$Q87.\ Option(3)$$

$$? = \frac{3942}{64 \times 3} = 20.53 \approx 21$$

$Q88. \ Option(4)$

$$? = \frac{23}{10} \times \frac{34}{7} \times \frac{15}{2} = 83.785 \approx 84$$

$$Q89. \ Option(4)$$

$$? = 12.6 \times 22 \times 18 = 4989.6 \approx 4959$$

Q90. Option(3)

$$? \approx 17 + 27 + 37 - 13 - 9 \approx 59 \approx 60$$

Q91. Option(3)

$$? \approx 8400 \div 375 \times 15$$

$$\frac{8400 \times 15}{375} = 336 \approx 335$$

$$? \approx 37 \times 37 = 1369 \approx 1370$$

$$? \approx \frac{620 \times 15}{100} = 93 \approx 95$$

$$? \approx 11 \times 20 \times 9 = 1980$$

Q95. Option(2)

$$? = 1088.88 + 1800.08 + 1880.80 = 4769.76 \approx 4770$$

$$? \approx 1548 + 3065 \times \frac{1}{15}$$

$$= 1548 + 204.33 = 1752.33 \approx 1750$$

Q97. Option(5)

$$\approx 250 \times \frac{32}{5} \approx 2400 \times ?$$

$$\approx \frac{1600}{2400} = \frac{2}{3}$$

Q98. Option (1)

$$? = \frac{695 \times 39 \times 10}{100} = 2710.5 \approx 2800$$

$$6 \times 1.414 + 14.275 = 196.35 \times ?$$

$$22.759 = 196.35 \times ?$$

$$? = \frac{22.759}{196.35} \approx \frac{1}{8}$$

Q100. Option(3)

$$\approx 1525 \times 20 + 495$$

$$= 30500 + 495 = 30995 \approx 31000$$



Approximation

Q1.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $95^{3.7} \div 95^{0.9989} = 95$?

(a)1.9

(b)3

(c)2.99

(d)3.6

(e)2.7

<u>Q2.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
\int ? + of 1891.992 = ?
```

(a)2500

(b)1230

(c)1640

(d)1525

(e)2130

<u>Q3.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
0.0004 ÷ 0.0001 × 36.000009 =?
(a)0.1
(b)1.45
(c)145
```

(e)1450

(d)14.5

<u>Q4.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

137% of 12345 = ?

(a)17000 (b)15000

(c)1500

(d)14300

(e)900 <u>Q5.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $3739 + 164 \times 27 = ?$

(a)5400

(b)4000

(c)8200

(d)690

(e)6300 <u>Q6.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$447.75 \div 28 \times 4.99 = ?$$
 (a)60

(b)70

(c)72

(d)80

(e)7 5

<u>Q7.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(3.5)^2 \times 19.25 + ? = 275$$

(a)15

(b)20

(c)30

(d)28

(e)4

Q8.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$85\%$$
 of $225 + 32.91 \times 5.01 = ?$ (a) 340

(b)355

(c)375

(d)345

(e)3 70

<u>Q9.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(15.96)^2 + 75\%$$
 of $285 = ?$
(a)435

(b)485

(c)440

(d)420

(e)470 <u>O10.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)540

(b)525

(c)545

(d)565

(e)520

Q11.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$63.9872 \times 9449.8780 \div 243.0034 = (?)^2$$
 (a)2489

(c)50

(d)45

(e)150

<u>Q12.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

5237.897 - 6629.010+7153.999 - 2205.102 = ?

(a)6340

(b)4688

(c)5240

(d)3558

(e)6290

Q13.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

4985.0346 ÷ 215.987 -3768.112 ÷ 206.868 = ? (a)8

(b)5

(c)18

(d)11

(e)15

<u>Q14.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\sqrt{=?}$

(a)979

(b)864 (c)1009

(d)647

(e)783

<u>Q15.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

459 % of 849.947 + 266% of 6284.012 - 1486.002 = ?

(a)20330

(b)12640

(c)15000

(d)22160

(e)19130

<u>Q16.</u>

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(4/5) \times (3/7) \div (6/7) \div (5/9) = ?$

(a) 9/17

(b)20/49

(c) 18/25

(d) 1/2

(e)None of these

Q18.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(399.98)^2 = ?$

(a)160000

(b)15999

(c)1600

(d)1599

(e)16000

019.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\sqrt{(4.9989)^2} = ? \div$$

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $6,23,898 \times 99 = ? \times 60,000$

(a)1000

(b)1030

(c)1050

(d)1065

(e)1010

Q17.

(a)6

(b)50

(c)10

(d)125

(e)1 5

<u>Q20.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

989.001 + 1.00982 × 76.792 =?

(a)10

00

(b)11

00

(c)10

65

(*d*)11

(e)1

00

<u>Q21.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(3/7) \times (4/9) \times (2/5) \times 3719 = ?$$

(a)341

(b)283

(c)274

(d)301

(e)2

88 **Q22.**

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$0.008 + 6.009 \div (0.7)^2 = ?$$

(a)21

(c)12

(d)8

(e)18

Q23.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(\sqrt[3]{\times 7}) \div (3.8 \times 5.5) = ?$$

(a)48

(b)22

(c)43

(d)26

(e)31

<u>Q24.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$98 \times 785 \div (285)^2 = ?$$

(a)0.3

(b)1.8

(c)2.2

(d)0.9

(e)0.08

Q25.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \overline{\times 0}.56 + 14.38 = ?$$

(a)30

(b)35

(c)42

(d)25

(e)45

<u>Q26.</u>

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

(b)725

(c)695

(d)752

(e)666

Q27.

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

(621.52)2= ?

(a)386300

(b)379300

(c)398300

(d)365300

(e)356300

Q28.

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

561204 × 58 = ? × 55555

(a)606

(b)646

(c)556

(d)716

(e)5

86

<u>Q29.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(444\% \text{ of } 531) \div 972 = ?$

(a)4.5

(b)0.5

(c)2.5

(d)8.5

(e)6.

5

<u>Q30.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(9321 + 5406 + 1001) \div (498 + 929 + 660) = ?$$

(a)13.5

(b)4.5

(c)16.5

(d)7.5

(e)1

0.5 *Q31*.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $(11.49)^4 =$

2

(a)1554

4

(b)1672

9 (c)17430

(d)18443

(e)19031

Q32.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(2198 - 1347 - 403) \div (159 - 113 - 27) = ?$$

(a)15

(b)24

(c)37

(d)49

(e)53

Q33.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(825 % of 330)÷ 507 = ?

(a)5

Q34.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\sqrt{\times 1.486} = ?$

(a)1200

(b)1000

(c)1600

(d)1400

(e)800

Q35.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $564.666 + 82.5091 \times 44.581 - 34.111 = ?$

(a)28456

(b)4000

(c)1600

(d)14225

(e)4210

Q36.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(47\% \text{ of } 1442-36\% \text{ of } 1412) \div 63 = ?$

(a)4

(b)5

(c)3

(d)6

(e)1

Q37.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(e)13 <u>Q38.</u>

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $(341789+265108) \div (8936-3578) = ?$

(a)150

(b)113

(c)135

(d)100

(e)125

Q39.

 $(f - f) \times = ?$ (a) 11

(b)14

(c)15

(d)9

29% of 725 = 60% of 315 +?

(a)28

(b)30

(c)15

(d)18

(e)

(c) 21

<u>Q4</u> <u>0.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $1595 \div 25 \times 36.5 = ?$

(a)24

59

(b)23

29 (c)23

59

(d)24

29

(e)24

00

Q41.

 $41.63251 \times 82 = ? \times 42105$

(a)101

(b)123

(c)147

(d)165

(e)1

89

<u>Q42</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\sqrt{=?}$

(a)240

(b)270

(c)330

(d)290

(e)310

<u>Q43.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(54.78)^2 = ?$

(a)3000

(b)3300

(c)3500(d)3700

(e)3900

Q44.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(7171 + 3854 + 1195) \div (892 + 214 + 543) = ?$

(a)13

(b)18

(c)3

(d)26

(e)7

Q45.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(562% of 816) + 1449 = ?

(a)4145

(b)5675

(c)6035

(d)7325

(e)9200

<u>Q46.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $888888 \div 88 \div 8 = ?$

(a)80800

(b)1047

(c)1263

(d)70600

(e)1526

<u>Q47.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)226

(b)484

(c)168

(d)196

(e)324

Q48.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $27.8 \times 28.74 \times 17.3 = ?$

(a)13822

(b)12546

(c)10228

(d)15183

(e)14995

Q49.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(12/7) \times (90/13) \times (53/9) = ?$$

(a)110

(b)70

(c)30

(d)20

(e)50

Q50.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

16.8% of 222 × 12.1% of 923 =?

(a)33 25 (b)50 85 (c)29 25 (d)41 65 (e)62 45

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(4576 + 3286 + 5639)$$
÷ $(712 + 415 + 212)$ = ? (a)18

(b)22

<u>Q51.</u>

(c)34

(d)10

(e) 46

<u>Q5</u> 2.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
675.456 + 12.492 × 55.671 = ?
(a)971
```

(b)1071

(c)1171

(d)1271

(e)1371

Q53.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(447.22)2=

(a)200000

(b)210000

(c)220000

(d)230000

(e)240000

<u>Q54.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)360

(b)3600

(c)36000

(d)360000

(e)3600000 Q55.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)17

(b)11

(c)21

(d)27

(e)31

Q56.

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replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\sqrt{=?}$

(a)11

(b)6

(c)15

(d)19

(e)4 <u>Q57.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(8/5) \times (15/7) \times (22/3) = ?$$

(a)17

(b)13

(c)9

(d)29

(e)25 <u>Q58.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

18.999 × 12.005 × 25.998 = ?

(a)4860

(b)6470

(c)3320

(d)5930

(e)4590

<u>Q59.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

11.5% of 666 × 18.3% of 888 = ?

(a)15608

(b)12446

(c)10520

(d)18338

(e)11542

Q60.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $2898 \div 22 \div 2 = ?$

(a)278

(b)52

(c)66

(d)43

(e)263 <u>Q61.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $175 \times 28 + 275 \times 27.98 = ?$

(a)11800

(c)128

00

(d)116

00

(e)122

00

Q62.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

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

(a)13

00

(b)12

30

(c)14

40

(d)13

80

(e)13

40

Q63.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

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

(a)188

00

(b)190

00

(c)196

00

(d)192

00

(e)186

00 **Q64.**

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int + \int = ?$

(a)58

(b)56

(c)52

(d)63

(e)61

<u>Q65.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

69.008 % of 699.998 +32.99% of 399.999 = ?

(a)615

(b)645

(c)675

(d)715

(e)725

Q66.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $7999.99 + 72 \times 49.99 = ?$

(a)12000

(b)12600

(c)12500

(d)11600

(e)11000

<u>Q67.</u>

replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

 $(25.01)^2 - (15.99)^2 = ?$

(a)361

(b)381

(c)369

(d)375

(e)356

<u>Q68.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $380 \times 12.25 - 365 \div 15 = ?$

(a)4500

(b)4550

(c)4800

(d)4850

(e)4630

<u>Q69.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

180% of 25501 + 50% of 28999 = ?

(a)62400

(b)64000

(c)60400

(d)64200

(e)61600

<u>Q70.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $171.995 \times 14.995 \div 25 = ?$

(a)105

(b)115

(c)110

(d)125

(e)120

Q71.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

1580.05×23.98=?

(a)36900(b)36800

(c)37500 (d)37900

(e)37200

072.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $77.077 \div 7.07 \times 6.08 = ?$

(a)57

(c)48

(d)77

(e)

66

<u>Q</u>7

<u>3.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(16.01)^2 - (8.99)^2 = ?$$

(a)175

(b)180

(c)170

(d)165

(e)1

85

<u>Q74.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)740

(b)720

(c)680

(d)640

(e)6

20

<u>Q75</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value) (e)435

Q76.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)3200

(b)4100

(c)2700

(d)3700

(e)4500

<u>Q77.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(52/9) \times (44/5) \times (29/3) = ?$$

(a)490

(b)590

(c)540

(d)460

(e)520

<u>Q78.</u>

 $\int \times \int =?$

(a)400

(b)420

(c)440

(d)405

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $5940 \div 28 \div 6 = ?$ (a)40

(b)35

(c)46

(d)52

(e)27 <u>Q79.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

15.5% of 850 + 24.8% of 650=? (a)295

(b)330

(c)270

(d)375

(e)220

<u>Q80.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \overline{=?}$ (a)54

(b)59

(c)41

(d)37

(e)72

<u>Q81.</u>

15.5% of 323 - 20.8% of 198 =?

(a)12

(b)5

(c)15

(d)3

(e)9

*Q*82.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $3058 \div 27 \times 3 = ?$

(a)360

(b)348

(c)340

(d)330

(e)321

Q83.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(3.58)^2 \times (1.75)^2 = ?$

(a)25

(b)40

(c)30

(d)35

(e)50

Q84.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \div \int = ?$

(a)21

(b)6

(c)12

(d)18

(e)

26

<u>Q8</u> <u>5.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $37.5 \times 34.9 \div 2.75 = ?$

(a)476

(b)491

(c)464

(d)453

(e)4

86

<u>Q86.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

18% of 609 + 27.5% of 450 = ?

(a)220

(b)233

(c)267

(d)248

(e)2

74

<u>Q87</u>

<u>-</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)29

(b)32

(c)21

(d)17

(e)11

Q88.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(23/10) \times (34/7) \times (15/2) = ?$

(a)68

(b)72

(c)93

(d)84

(e)101

Q89.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

12.564 × 22.009 × 17.932 = ?

(a)4901

(b)4895

(c)4800

(d)4959

(e)4350

Q90.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)72

(b)42

(c)60

(d)51

(e)65

Q91.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)565

(b)225

(c)335

(d)625

(e)455

<u>Q92.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

√? = 37.0005

(a)1150

(b)1220

(c)1570

(d)1370

(e)1480

Q93.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)95

(b)80

(c)115

(d)75

(e)105

Q94.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $11.003 \times 19.998 \times 9.010 = ?$

(a)1710

(b)1680

(c)1800

(d)1980

(e)1750

Q95.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
1088.88+1800.08+1880.80=?
(a)395
0
(b)477
0
(c)462
0
(d)504
0 (e)
6810,
Q96.
```

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
1548.45 +3065.15 ÷15.058=?
(a)17
00
(b)16
50
(c)-3
```

(d) 1750 1840

(e)19 50 <u>Q</u>97.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
(32/5) of 248.65 = ? of 2398.59
(a) 2/5
(b)0.25
(c)0.5
(d)0. 5
(e)0.67
Q98.
```

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
39% of 695= 10% of?
(a)2800
(b)2400
(c)3200
(d)31000
(e)250099
<u>Q99.</u>
```

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Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$6\sqrt{+14.275} = ? of 196.35$$
 (a) 0.33

(b)0.25

(c)0.125

(d)0.2

(e)0.5

Q100.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1524.79 \times 19.92 + 495.26 = ?$$
 (a)33,000

(b)78,535

(c)31,000

(d)26,575

(e)34,000

Q101.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)215

(b)175

(c)200

(d)180

(e)205

Q102.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$96.996 \times 9.669 + 0.96 = ?$$

(a)860

(b)870

(c)1020

(d)940

(e)1100

Q103.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$-\times \times 7=?$$

(a)7

(b)12

(c)9

(d)12

(e)4 <u>Q104.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(\sqrt{\times 25}) \div 30 = ?$$

(a)12

(b)15

(c)24

(d)21

(e)9

Q105.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(638 + 9709 - 216) \div 26 = ?$$

(a)275

(b)365

(c)420

(d)300

(e)390

Q106.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \overline{\times (5.96)^2} = ?$ (a)30
50
(b)37
80
(c)23
40
(d)34
00
(e)39
50
Q107.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

4734.96 - 3454.03 - 1612.86= ? - 1611.43 (a)128 0 (b)229 0 (c)102

(d)181 50 (e)104

0 **Q108.**

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(323/55) \times (971/251) \times (56/61) = ?$ (a)27

(b)9

(c)4

(d)16

(e)2 1

<u>Q109</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $133.008 \times 2.97 - 111.87 + 74.13 = ?$

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(a)311

(b)234

(c)357

(d)290

(e)399 Q110.

Find out the approximate value which should replace the question mark (?) in the following questions. (You

are not expected to find out the exact value)

 $32.1 \times 2799 \div 549 \div 120 = ?$

(a)220

(b)284

(c)375

(d)505

(e)None of these

0111.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

21.7 % of 514.9 - 43.44 = (?/5.5) (a)320

(d)375

(e)420112.

Q112.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)9400

(b)9000

(c)8700

(d)8400

(e)9200

Q113.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)4466

(b)4377

(c)3633

(d)4144

(e)3344

<u>Q114.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(13.96)^2 - (15.03)^2 + (18.09)^2 - 32.65 = ?$$

(a)223

(b)264

(c)334

(d)354

(e)201

Q115.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(91/12) \times (121/19) \div (28/3) = ?$$

(a)9

(b)11

(c)2

(d)5

(e)13 Q116.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

(a)6500

(b)6000

(c)6300

(d)5700

(e)5100

Q117.

replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $1002 \div 49 \times 99 - 1299 = ?$

(a)700

(b)600

(c)900

(d)250

(e)40

0

<u>Q11</u> <u>8.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

29.8% of 260 + 60.01 % of 510- 103.57 = ?

(b)320

(c)210

(d)280

(e)3

50 **Q11**

<u>9.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(21.98)^2 - (25.02)^2 + (13.03)^2 = ?$$

(a)25

(b)120

(c)10

(d)65

(e)1

40 Q12

<u>0.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \times \int \div \int = ?$$

(a)110

(b)90

(c)200

(d)160

(e)125

<u>Q121.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(150/17) \times (199/13) \div (16/91) = ?$$

(a)650

(b)700

(c)770

(d)820

(e)850

Q122.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(d)410

(e)360

<u>Q123.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $1299 \div 19.99 \times 25.01 + 400.01 = ?$

(a)2025

(b)2300

(c)1925

(d)2200

(e)1700

Q124.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

30.06 % *of 499* + *39.99*% *of 799*=?

(a)420

(b)380

(c)440

(d)470

(e)510

Q125.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(14.99)^2 - (7.01)^2 + (4.99)^3 = ?$$

(a)250

(b)200

(c)150

(d)300

(e)350

<u>Q126.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

- *=* ?

(a)35

- (b)20
- (c)40
- (d)50
- (e)55
- <u>Q127.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(128.4 + 11.101 + 35.025) \div ?= 12$

- (b)10
- (c)18
- (d)14
- (e)20<u>Q128.</u>

replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

$$572 \div \sqrt{\times 12} = ?$$

(a)160

(b)170

(c)155

(d)165

(e)1 75

<u>Q12</u> <u>9.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \div \int = ?$$
(a)4

(b)8

(c)12

(d)15

(e)6 **013**

n

Find out the approximate value which should replace the question mark (?) in the following questions.

(You are not expected to find out the exact value)

(a)72

(b)66

(c)58

(d)52

(e)None of these

Q131.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

00

UU

(b)10

80

(c)1000

(d)1020

(e)1060

Q132.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)375

(b)400

(c)350

(d)425

(e)450

Q133.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(d)850

(e)1000

<u>Q134.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int - \int + \int = ?$$

(a)50

(b)90

(c)40

(d)20

(e)30

Q135.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(901/29) \times (91/301) \div (51/599) = ?$$

(a)140

(b)120

(c)60

(d)80

(e)110

Q136.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)135

(b)85

(c)100

(d)120

(e)90 *Q137*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)2560

(b)2870

(c)2930

(d)2390

(e)2900 <u>Q138.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)40

(b)45

(c)35

(d)30

(e)50 <u>Q139.</u>

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

24.996 × 13.005 × 17.080 = ?
(a)62

25
(b)55

25
(c)54

05
(d)58

75
(e)60

25

Q140

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

8599.999 ÷ 420.002 × 14.996 =? (a)250

(b)325

(c)275

(d)300

(e)3

50 **Q14**

<u>1.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $31.85 \div 3.90 \times 15 = ?$ (a) 120

(b)90

(c)80 (d)1401 (e)160

Q142.

Find out the approximate value which should replace the question mark (?) in the following questions.

(You are not expected to find out the exact value)

 $4.99 \times 12.865 + 599 = ?$ (a)650

(b)655

(c)665

(d)670

(e)675

Q143.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $21 + 63 \div 17 = ?$ (a)35

(--,--

(b)40

(c)10

(d)25

(e)15 <u>Q144.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $1562 \div 24\% \text{ of } 356 = ?$ (a)24

(d)28

(e)8

Q145. Find out the approximate value which should replace the question mark (?) in the following questions. (You

are not expected to find out the exact value)

$$5986 \div 364 \times \sqrt{=?}$$

(a)250

(b)245

(c)230

(d)235

(e)255 *Q146*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$5682 \div 63 \times 36 = ? \times 19$$

(a)170

(b)190

(c)210

(d)240

(e)140

Q147.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(340/33) \div (43/510) \times (113/93) = ?$$

(a)150

(b)120

(c)210

(d)240

(e)170

<u>Q148.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(31.33)^2 + (3.96)^3 - (12.02)^2 = ?$$

(a)800

(b)900

(c)950

(d)980

(e)1000

Q149.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \times \int \div \int = ?$$

(a)130

(b)110

(c)140

(d)160

(e)90

Q150.

replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

39% of 405 + 62% of 610 -183.57 = ?

(a)450

(b)300

(c)230

(d)280

(e)None of these

Q151.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(b)210

(c)250

(d)280

(e)30

0

<u>Q15</u> 2.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(249/15) \times (299/19) \div (14/99) = ?$$

(a)1850

(b)1750

(c)20009

9

(d)1700

(e)1900

Q153.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(11.99)^2 - (8.01)^2 + (5.99)^3 = ?$$

(a)250

(b)450

(c)300

(d)400

(e)350 Q154.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1201 \div 14.99 \times 19.91 + 400.01 = ?$$

(a)1700

(b)1850

(c)1800

(d)1950

(e)2000

Q155.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(d)410

(e)320

Q156.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

12959.998 + 18.010 = ?

(a)840

(b)990

(c)570

(d)680

(e)720

<u>Q157.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

40.005 % of 439.998 + ? % of 655.011 = 228.5 (a)8

(b)17

(c)12

(d)20

(e)5 Q158.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

6894.986 + 5025.005 + 600.020 = ?

(a)12170

(b)13540

(c)12950

(d)11560

(e)12520

Q159.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

31.999 × 12.001 × 17.5001=?

(a)6600

(b)6720

(c)6480

(d)6070

(e)6270

Q160.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(10.998)^3 = ?$

(a)1440

(b)1730

(c)1330

(**d**)1640

(e)1000

Q161.

replace the question mark (?) in the following questions. (You are not expected to find out the exact value) $(41.33)^2 \div (7.96)^2 - (22.02)^2 = ?$ (a)12 80 (b)14 40 (c)15 80 (d)15 40 (e)13 80 O162

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(b)500

(c)700

(d)650

(e)5 50

<u>Q16</u> 3.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$52001 \div 61 \times 29 = ? \times 41$$
(a) 700

(b)600

(c)5 00

(d)55

0,

(e)6

80 <u>Q16</u> <u>4.</u>

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

- (a)700
- (b)8501
- (c)900
- (d)800
- (e)650

Q165.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \times \int \div \int = ?$$

- (a)200
- **(b)250**
- (c)300
- (d)225
- (e)325
- *Q166*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$499.99 + 1999 \div 39.99 \times 50.01 = ?$$
(a)3200

(b)2700 (c)3000

(d)2500

(e)2400

<u>Q167.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $[(7.99)^2 - (13.001)^2 + (4.01)^3]^2 = ?$

(a)-1800

(b)1450

(c)-1660

(d)1660

(e)-1450

Q168.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(601/49) \times (399/81) \div (29/201) = ?$$

(a)520

(**b**)360

(c)460

(d)500

(e)420

Q169.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(b)630

(c)660

(d)690

(e)720 Q170.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

$$(21.5\% \text{ of } 999)^{1/3} + (42\% \text{ of } 601)^{1/2} = ?$$

(a)18

(b)22

(d)30

(e)33

<u>Q171.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)110

(b)150

(c)200

(d)50

(e)125 <u>Q172.</u>

of
$$601)^{1/2}=?$$

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(18.001)³ = ? (a)5832 (b)5500 (c)6000 (d)6480 (e)5240

0173.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
23.001 × 18.999 × 7.998 = ?
(a)42
00
(b)300
0
(c)35
00
(d)400
0
(e)25
00
<u>Q174.</u>
```

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
9999 ÷ 99 ÷ 9 = ?
(a)18
(b)15
(c)6
(d)11
(e)2
0
```

<u>Q17</u> <u>5.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
22.005 % of 449.999 = ?
(a)85
(b)100
(c)125
(d)75
```

(e)150 Q176.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
73.99 % of 1299 + 9.98% of 1899 = ?
(a) 1250
(b) 1230
(c) 1150
(d) 1180
(e) 1200
<u>Q177.</u>
```

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(d)810

(e)770

<u>Q178.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(9.979)^3 - (23.99)^2 + (1.99)^5 = ?$$

(a)350

(b)490

(c) 390,

(d)420

(e)450

<u>Q179.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(18/4)^2 \times (455/19) \div (61/799) = ?$$

(a)6320

(b)6350

(c)6400

(d)6430

(e)6490

Q180.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)620

(b)650

(c)680

(d)700

(e)600

Q181.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(24/9)^2 \times (399 \times 39) \div (41/899) = ?$$

(a)1600

(b)1650

(c)1700

(d)1550

(e)1750

Q182.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)700

(b)720

(c)770

(d)800

(e)740

Q183.

replace the question mark (?) in the following questions. (You are not expected to find out the exact value) 5466.97 - 3245.01 + 1122.99 = ? + 2309.99 (a)11

(*a*)11 30

(**b**)10 00

(c)11 00

(d)10 30

(e)10 60

<u>Q184</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

5998 ÷ 9.98 + 670.99 - 139.99 = ? (a)10 80 (b)12

80 (c)11

80 (d)11

30 (e)12

30

<u>Q185</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $-(4.99)^3 + (29.98)^2 - (3.01)^4 = ?$

(a)550

(b)590

(c)620

(d)650

(e)69 0

<u>Q18</u> <u>6.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value) $\int \times \int \div \int = ? \div 8$

(a)620

(b)670

(c)770

(d)750

(e)700 Q187.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

89.988 % of 699.9 + 50.002% of 999.99 - 170.015 = ?

(a)990

(b)900

(c)920

(d)960

(e)860 Q188.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

<u>÷×=?</u>

(d)870

(e)780

<u>Q189.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$6999 \div 70.005 \times 94.998 = ? \times 19.999$$

(a)475

(b)420

(c)320

(d)540

(e)525

Q190.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(49.99)^2 - (8.9)^2 - (15.9)^2 = ?$$

(a)2165

(b)2000

(c)1965

(d)1920

(e)1885

<u>Q191.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$7441 \div 34 \times 12 = ? \times 9 + 110$$

(a)420

(u) ± 20

(b)280

(c)590

(d)350

(e)220

Q192.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

$$(989/34) \div (65/869) \times (515/207) = ?$$

(a)840

(b)920

(c)970

(d)780

(e)1000

Q193.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(32.13)^2 + (23.96)^2 - (17.11)^2 = ?$$

(a)1270

(b)1420

(c)1450

(d)1360

(e)1310

<u>Q194.</u>

replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

 $\int \times \int \div \int = ?$

(a)120

(b)140

(c)160

(d)180

(e)20

0

<u>Q19</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

67% of 801 - 231.17 =? - 23% of 789 (a)490

(b)440

(c)540

(d)520

(e)5 90

<u>Q19</u> <u>6.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

39.897% of 4331 + 58.779% of 5003 = ?

(a)42

00

(b)46

00

(c)47

00

(d)480

0

(e)52

00

Q197.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $43931.03 \div 2111.02 \times 401.04 = ?$

(a)89

00

(b)6600

(c)6400

(d)8000

(e)8300

<u>Q198.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \times \int \div \int = ?$

(a)130

(b)110

(c)140

(d)160

(e)90

<u>Q199.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\sqrt{+349} = ? \div 21.003$ (a)6700

(d)9520

(e)7680

Q200.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$5682 \div 63 \times 36 = ? \times 19$$

(a)170

(b)190

(c)210

(d)240

(e)140

Q201.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$8787 \div 343 \times \sqrt{} = ?$$

(a)250

(b)140

(c)180

(d)100

(e)280

Q202.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\sqrt{\times (303 \div 8)} = (?)^2$$

(a)48

(b)38

(c)28

(d)18

(e)58

<u>Q203.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(5/8)$$
 of $4011.33 + (7/10)$ of $3411.22 = ?$

(a)4810

(b)4980

(c)4890

(d)4930

(e)4850 <u>Q204.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

23% of 6783 + 57% of 8431 = ?

(a)6460

(b)6420

(c)6320

(d)6630

(e)6360

Q205.

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

335.01 × 244.99 ÷ 55 = ?

(a)14

90

(b)15

50

(c)14

20

(d)15

90

(e)14

00

<u>Q206</u>

:

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

24% of 4568÷ 8% of 246 is approximately equal to (a)32

(b)43

(c)89

(d)78

(e)5

5

Q207

.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(13.001)^3 =$

? (a) 1900

(b)2200

(c)2000

(d)1800

(e)2100

(c)2540

(d)3030

(e)2750

Q209.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

50.001% of 99.99 ÷ 49.999 = ?

(a)1

(b)0.1

(c)0.01

(d)0.02

(e) None of these

Q210.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

999.0001+899.999 - 349.88 = ?

(a)1549

Q208.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $55.003 \times 54.998 + 5.001 = ?$ (a)35
00
(b)36

30

(d)1460

(e) None of these

0211.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(2.0001)^3 \times (1.999)^{-2} \div (3.999)^{-4} = ?$

(a)32

(b)16

(c)64

(d)256

(e)512

Q212.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(10.97)^2 + (4.13)^3 \times 3.79 = ?$$

(a)428

(b)376

(c)197

(d)204

(e)302

Q213.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)500

(b)550

(c)478

(d)341

(e)596

Q214.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \times 23.93 - 31.04 = ?$$

(a)98

(b)65

(c)102

(d)35

(e)79 Q215.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)6100

(b)6900

(c)6000

(d)6400 (e)6500

*e)*0500

Q216.

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

3018.19 ÷2.87 - 841.02 = ?

(a)365

(b)90

(c)38

/ (d)10

00

(e)20 0

<u>Q217</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$2371 \div 6 + (43 \times 4.35) = ?$$

(a)582

(b)590

(c)600

(d)570

(e)59

5

<u>Q21</u> <u>8.</u>

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

$$\int + \int = ?$$

(a)56

(b)51

(c)53

(d)54

(e)5 5

<u>Q219</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(4.989)^2 + (21.012)^3 + \sqrt{=?}$$

- (a)9219
- (b)9391
- (c)9319
- (d)9129
- (e) None of these

Q220.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

7020 ÷2.99 × (13/29)=?

- (a)1040
- (b)1100
- (c)1060
- (d), 1050
- (e) None of these

0221.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

24.99% of 5001 - 65.01% of 2999 = ? (a)840

(d)-500

(e)-700

Q222.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(81)^{-1/2} - (64)^{-2/3} = ?$$

(a) 3/19

(b) 1/16

(c) 7/144

(d)01-Sep

(e) None of these

Q223.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$331.8 \div 23.7 + (-21)^2 - 94 = (?)^2$$

(a)15

(b)16

(c)18

(d)19

(e)17

Q224.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(b)72

(c)62

(d)65

(e)66

<u>Q225.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\frac{\sqrt{x}}{5} = ?$$

replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$21 + 3.9 \times 2.9 + 8.99 = ?$$

(a)42

(b)46

(c)44

(d) 34,

(e)36

Q228.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$22.9889 + 0.002 \div ? = 23$$

(a)23

(b)1

(c)232

(d)24

(e) None of these

Q229.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value I = ?

(a)1000

(b)100

(c)1000

(d)10000

(e)999

Q230.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

134% of 3894 + 38.94 of 134 = ?

(a)11452

(b)10000

(c)10452

(d)1100

(e) None of these

Q231.

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(b)49

(c)46

(d)45

(e)61

<u>Q226.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(13/4) + (44/7) + ? = (367/28)$$

(a) 23/7

(b)25-Jul

(c) 24/7

(d)26-Jul

(e) 27/7

<u>Q227.</u>

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Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)6

(b)9

(c)7

(d)10

(e)12 Q232.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$4 \times (3/13) \times 952 - (901/7) = ?$$

(a)823

(b)840



(d)839

(e)845

Q233.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

105.01% of 8451- (3/7) of 5006 + 9.999 = ?

(a)8879

(b)8860

(c)8850

(d)8760

(e)None of these

0234.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a) 6, 9

(b) 9, 9

(c) 6,12

(d) 16,9

(e) 6, 18

Q235.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$21 + 3.7 \times 2.9 = ?$$

(a)74

(b)70

(c)27

(d)32

(e)44

<u>Q236.</u>

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

(a)9

(b)8

(c)6

(d)11

(e)12

Q237.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

6575 ÷17.98 × 42.03 ÷6.87 =?

(a)2190

(b)2280

(c)2090

(d)2150

(e) None of these

Q238.

Find out the approximate value which should replace the question mark (?) in the following

questions. (You are not expected to find out the exact value)

 $12.002 \times 15.005 - 8.895 \times 6.965 = ?$ (a) 130

(b)117

(c)105

(d)110

(e) None of these

0239.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $12.664 \times 22.009 \times 17.932 = ?$

(a)51

00

(b)52

00

(c)51

48

(d)51 99

(e) None of these

Q240.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(b)51

(c)52

(d)59

(e)6

5

Q24

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

$$18\% \text{ of } 602 + 27.8\% \text{ of } 450 = ?$$
(a) 234

(b)260

(d)220

(e)250

Q242.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$4797 \times 26.12 + 38.99 + ? = 2^5 \times 5^3$$

(a)780

(b)775

(c)802

(d)820

(e) None of these

Q243.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$3194 \div 7.85 + 74.85 \% \text{ of } 798 = ?$$

(a)1050

(b)975

(c)950

- (d)1000
- (e) None of these

Q244.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

- (2/9) of (3/16) of (8/15) of 1275 = ? (a)28
- (b)32
- (c)25
- (d)40
- (e) None of these

0245.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(17.02)^2 \times (1.99)^3 + (8.95)^3 \times (4.95)^2 = ?$$

- (a)20573
- (b)20537
- (c)25037
- (d)21537
- (e) None of these

Q246.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(27.97)^2$$
- $(21.92)^2$ + $(2345.88 + 154.44)$ ÷? = 350 (a)36

- **(b)**45
- (c)50
- (d)65
- (e)55

Q247.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1774.98 \times 24.68 \div (3/8) \text{ of } 161 = ?$$

- (a)740
- **(b)700**

- (c)640
- (d)690
- (e) None of these

Q248.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

- (a)85
- (b)75
- (c)80
- (d)57
- (e) None of these

0249.

Find out the approximate value which should replace the question mark (?) in the following

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questions. (You are not expected to find out the exact value)

 $11989 - 27.95 \times 14.98 \times 11.05 - ? = 2800$

(a)48 50

(b)43

80

(c)45

80 (d)⁴

(d)55

80

(e) None of these

Q250.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

75.06% of $359.65 \times (4/7)$ of $139.89 \div 7.99 = ?$

(a)24

00

(b)280

U

(c)260

(1) a

(*d*)27 00

...

(e)30 00

<u>Q251.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$767.87 \div 23.96 \times 15.02 - 29.98 = ? \times 9.08$$

(a)50

(b)55

(c)45

(d)48

(e)5

<u>Q252</u>

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

$$(3/5)$$
 of $(7/19)$ of $(5/28)$ of $543 = ?$

(a)21

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(b)25

(c)14

(d)16,

(e)28 Q253.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $12.95 \times 7.05 + (85.01)^2 \times 10.99 = ?$

(a)69566

(b)79566

(c)81000

(d)80566

(e) None of these

0254.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)370

(b)380

(c)400

(d) 410:

(e)420

<u>Q255.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)224

(b)230

(c)250

(d)244

(e)260

Q256.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(17.95)^2 - (14.05)^2 + (2343.75 + 81.55) \div ? = 229$$

(a)24

(b)28

(c)30

(d)20

(e)25

Q257.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\sqrt{\div?} \times 14.98^2 = 450$$

(a)15

(b)10

(c)7

(d)4

(e)12

<u>Q258.</u>

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

(a)49

(b)50

(d)39

(e)16

Q259. Find out the approximate value v

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$820.15 + 2379.85 + 140.01 \times 4.99 = ?$$

(a)4400

(b)3900

(c)3000

(d)4000

(e)4300

Q260.

Find out the approximate value which should replace the question mark (?) in the following

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questions. (You are not expected to find out the exact value)

39.97% of 649.8 ÷13.05 = 45.12 - ?

(a)40

(b)15

(c)25

(d)10

(e)3

0

<u>Q26</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(674.87 + 59.98) \div 35.02 = ?$

(a)

29

(b)-

27

(c)1

(d)21

(e)1

1

<u>Q26</u> 2.

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

$$241 \div 15 \times 287.98 \div 18.04 = ?^{2}$$

(a)26

(b)24

(c)18

(d)14

(e)1

6

<u>*Q*26</u> <u>3.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

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(a)15

(b)20

(c)10

(d)35

(e)25

<u>Q264.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

246.01 + 2953.98 - 449.98 - 302 = ?

(a)2020

(b)2800

(c)2450

(d)3000

(e)3050

Q265.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

299.85 - 145.05 + 29.99 × 12.02 = ?

(a)515

(b)395

(c)475

(e)575

Q266.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\sqrt{\times 7.99} + 705.97 = ?$$

(a)895

(b)750

(c)675

(d)850

(e)800

Q267.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)110

(b)145

(c)85

(d)95

(e)125

Q268.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1680.11 - 12.03 \times 14.93 + ?^2 = 1644$$

(a)12

(b)13

(c)14

(d)15

(e) None of these

(b)815

(c)840

(d)850

(e) None of these

Q270.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$9659 \div 20.99 + 7921 \div 11.97 = ?$$

(a)1140

(b)1160

(c)1120

(d)1150

(e) None of these

Q271.

Find out the approximate value which should replace the question mark (?) in the following

<u>Q269.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1442 \div 36 + (2/9) \times 4049 - 125.01 = ?$$
(a)820

value)

 $1401 \div 34.97 + 21.98 \times \sqrt{=?}$

(a)590

(b)700

(c)540

(d)550

(e) None of these

Q272.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $1559.95 - 7.99 \times 24.96 - ?^2 = 1154$

(a)14

(b)24

(c)32

(d)18

(e)8

027

3

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1599 \div 39.99 + (4/5) \times 2449 - 120.05 = ?$$

(a)16

80

(b)19

40

(c)16

40

(d)18

80

(e)17

80

<u>Q274</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1576 + 45.02 + 23.99 \times \sqrt{=?}$$

(a)340

(b)420

(c)380

(d)460

(e)360

<u>Q275.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

? + 30.01% of 651 ÷ 25.05% of 59.98= 135

(a)68

(b)140

(c)122

(d)78

(e)128.5

Q276.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $3899 \div 11.99 - 2379 \div 13.97 = ?$

(a)125

(b)250

(c)155

(e)225

Q277.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $5003 \times 14.96 \div 25.12 + ? = 12^2 \times 5^2$

(a)600

(b)1200

(c)800

(d)1000

(e)900

Q278.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $11.95^2 \times 5.05 + 15.01^2 \times 2.99 = ?$

(a)1150

(b)1215

(c)1885

(d)1180

(e)1395

Q279.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $31.95^2 - 12.05^2 + (1987.25 + 21.85) \div ? = 900$ (a) 115

` /

(b)120

(c)90

(d)85

(e)100325

Q280.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(3/5) of (2/7) of (5/12) of 555 = ?

(a)27

(b)48

(c)58

(d)40

(e)32

<u>Q281.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

2489.99 ÷9.85+ 54.94% of 271 = ? (a)800

(b)300

(c)500

(d)700

(e)400 Q282.

Find out the approximate value which should replace the question mark (?) in the following

value) $\sqrt{?} = (1346.92 + 46.94) \div 99.9 - 6.98$ (a) 121

(b) 44

1
(c) 10
24
(d) 49

(e) 19
6

Q28
3.

Find out the approximate value which should replace

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$32.01^2 \times 512^{1/3} \times 33.99^2 \div (2^9 \times 16.97^2) = 2^7$$

- (a)3
- (b)4
- (c)9
- (d)10

(e)6 **028**

4.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(14.99\% \text{ of } 4799.995) \div ?= (170\% \text{ of } 7.111)^2$$

(a) 150

- (b)25
- (c)100
- (d)50

(e)5 <u>Q28</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(3/20)$$
of $239 = ? \div (1.6 \times 0.499)$

- (a)30
- **(b)**300
- (c)600

- (d)120
- (e)80

Q286.

$$\int \overline{) \div 8.996} \div 9.98 + 39.4 = ?$$
(a)80

- (b)8
- (c)4
- (d)120
- (e)40 Q287.

If an amount of Rs. 74,336 is equally divided amongst 150 people, how much approximate amount would each person get?

- (a) Rs. 522
- (b) Rs. 485
- (c) Rs. 496
- (d) Rs. 488
- (e) Rs. 510

Q288.

Find out the approximate value which should replace the question mark (?) in the following

value)

 $85.147 + 34.912 \times 6.2 + ? = 802.293$

(a)400

(b)450

(c)550

(d)600

(e)500

<u>Q289.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $248.251 \div 12.62 \times 20.52 = ?$

(a)400

(b)450

(c)600

(d)350

(e)375

Q290.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $158.25 \times 4.6 + 21\%$ of 847 + ? = 950.93

(a)35

(b)40

(c)25

(d)50

(e)45

Q291.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $39.05 \times 14.95 - 27.99 \times 10.12 = (36 + ?) \times 5$

(a)22

(b)29

(c)34

(d)32

(e)25

Q292.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

9876 ÷ 24.96 + 215.005 - ?= 309.99

(a)395

(b)295

(c)300

(d)315

(e)310

<u>Q293.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

125% of 4875 + 88.005 × 14.995 = ?

(a)7395

(b)7490

(c)7510

(e)7415

Q294.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

```
127.001 \times 7.998 + 6.05 \times 4.001 = ? (a)14
```

40

(b)14

00

(c)10

00

(d)10

40

(e)11

40

<u>Q295</u>

<u>-</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1010 \div 36 + 187 \times 20.05 = ?$$

(a)36

50

(b)37

70

(c)38

25

(d)38

00

(e)37

00

Q296

<u>-</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$100/3$$
) % of $768.9 + 25$ % of $161.2 - 58.12 = ?$

(a)230

(b)225

(c)235

(d)220

(e)24

0

Q297.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)1.9

(b)3

(c)2.99

(d)3.6

(e)2.7

Q298.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)2500

(b)1230

(c)1640

(d)1525 (e)2130

Q299.

Find out the approximate value which should replace the question mark (?) in the following

value) 0.0004 ÷0.0001 × 36.000009 = ? (a)0.1

(b)1.45 (c)145

(d)14.5

(e)1450

Q300.

Q301.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

137% of 12345 = ? (a)17000 (b) 15000' (c)1500 (d)14300 (e)900

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

3739 + 164 × 27 = ?
(a)105400
(b)4000
(c)8200
(d)690
(e)6300
Q302.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $6523 \div 544 \times 1.2 = ?$ (a)21

(b)33

(c)14

(d)8

(e)28

Q303.

Find out the *approximate value* which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

(e) None of these

Q304.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $21 + 4.9 \times 7.9 + 9.88 = ?$ (a)65

(b)71

(c)66

(e) None of these

Q305.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$138\%$$
 of $3782 + 38.74\%$ of $142 = ?$

(a)52

48

(b)54

48

(c)53

48

(d)54

44

(e) None of these

Q306.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(27)^2 \times 6 \div 9 + (7)^3 + 71 = (?)^3 - 431$$

(a)13

(b)9

(c)10

(d)11

(e)19

13

Q307

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$70202 \div 2.99 \times (13/29) = ?$$

(a)117

00

(b)116

00

(c)115

60

(d)117

50

(e) None of these

Q308.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$52.02\%$$
 of $749 + 45\%$ of $419.98 - ? = 15^2$ (a) 354

(b)364

(c)370

(d)368

(e) None of these

Q309.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$349.98 \times 19.99 + ?^2 \times 180.16 = 11500$$

(a)3

(b)5

(c)4

(d)9

(e)25 Q310.

Find out the approximate value which should replace the question mark (?) in the following

value) $(1800 \div \sqrt{\times} 29.99) \div 15.02 = 144$

(a)12 (b)25

(c)625

(d)144

(e)169

Q311.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(52.02^2 - 34.01^2) \div 17.99 \times \overline{1} = 1720$ (a)400

(b)20

(c)25

(d)625

(e) None of these

0312.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(340 \times 9.98) \div 6.4001 + 1245.15 = ?$

(a)1766

(b)1776

(c)1676

(d)1876

(e)1806

Q313.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $6399 \times (13/8) + 353 \div ? = 10444$

(a)14

(b)22

(c)2

(d)16

(e)8 0314.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \times 14.02 + \int \times 15.97 = ?$

(a)670

(b)570

(c)710

(d)510

(e)6105

Q315.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

8461÷11.99 - 24.01 ÷ (5/100) =?

(a)625

(b)400

(c)25

(e)2

25

Q31

<u>6.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

14.85% of 679 + 19.9% of 219.89=?

(a)115

(b)145

(c)65

(d)105

(e)8

5

<u>Q31</u>

<u>7.</u>

Find out the approximate value which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $1441 \div ? + 149.98 \times 14.99 = 3006 - 254.91$

(a)35

(b)15

(c)25

(d)45

(e)3

031

8.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

Q319.

Find out the approximate value which should replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

 $11.92^2 + 16.01^2 = ?^2 \times 3.85^2$

(a)15

(b)2

(c)4

(d)5

(e)12

Q320.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(19.97% of 781) + ? + (30% of 87) = 252

(a)40

(b)50

(c)25

(d)70

(e)80

Q321.

Find out the approximate value which should replace the question mark (?) in the following

(a)13

15

(b)13

65

(c)12

15

(d)14

65

(e)12

65

value)

820.01 - 21 × 32.99 + ? = 240

(a)105

(b)173

(c)113

(d)234

(e)143

<u>Q322.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $299 \div 12 \times 13.95 + ? = 24.02^{2}$

(a)285

(b)226

(c)325

(d)150

(e)185

Q323.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(32.51)^2 - (17.45)^2 = ?$

(a)780

(b)850

(c)680

(d)820

(e)750

<u>Q324.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

88.25% of 450 = ?% of 530

(a)70

(b)68

(c)75

(d)80

(e)65

Q325.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

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

(a)680

(b)720

(c)750

(d)620

(e)630

<u>Q326.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $3745 \div 24.05 \times 17.98 = ?$

(a)2860

(b)2800

(c)2760

(e)2840

Q327.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

117.95 × 8.017 × 4.98 = ?

(a)46

70

(b)47

80

(c)48

40

(d)47

20

(e)48

00

Q328.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $?21.0091 - 6.085 + 13.24 = (35 + ?) \times 2$

(a)6.5

(b)10.5

(c)15.5

(d)20.5

(e)24

.5

Q32

<u>9.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

9876 ÷ 24.96 + 215.005 - ?= 309.99

(a)395

(b)295

(c)300

(d)315

(e)31

0

<u>Q33</u>

<u>0.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

8537.986-2416.005-221.996 = ?

(a)6500

(b)5900

(c)4300

(d)3900

(e)5050

Q331.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

1019.999 ÷ 60.007 = ?

(a)11

(b)23

(c)17

(d)27

(e)13

Q332.

Find out the approximate value which should replace the question mark (?) in the following

value) $1111111 \div 1111 \div 11 = ?$ (a)1180(b)15(c)1100(d)9

(e)2

0333.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $\int \overline{=?}$ (a)15

(b)9

(c)29

(d)32

(e)17 *Q334*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $16.001 \times 30.999 \times 8.998 = ?$ (a)4450(b)4800 (c)4100 (d)3900(e)5000 *Q335*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $17001 \div 81 \times 19 = ? \times 29$ (a)100

(b)110

(c)140

(d)170

(e)130 *Q336*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(901/51) \div (21/1201) \times (101/301) = ?$ (a)320

(b)350

(c)400

(d)410

(e)430 *Q337*.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

 $(9.99)^3 + (30.01)^2 - (17.01)^2 = ?$

(a)1610

(b)1630

(c)1580

(e)15

10

<u>Q338</u>

<u>.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$\int \times \int \div \int \times 10 = ?$$

- (a)720
- **(b)740**
- (c)810
- (d)840
- (e)7
- 60

Q33

<u>9.</u>

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

- (b)700
- (c)500
- (d)650
- (e)5
- 50

<u>Q34</u>

0.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(25/9) \times (16/53) \times 91 = ?$$

- (a)65
- **(b)75**
- (c)80
- (d) 85'
- (e) None of these

Q341.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(4/9) \times 5671 - (8/15) \times 2524 = ?$$

- (a)1200
- (b)1120
- (c)1100
- (d)117

5

(e) None of these

Q342.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

- (a)2272
- (b)2372
- (c)2172
- (d)2200
- (e) None of these

Q343.

Find out the approximate value which should replace the question mark (?) in the following

questions. (You are not expected to find out the exact value)

24.9% of 5679 + 44.9% of 4301 = ?

(a)3455

(b)3355

(c)3255

(d)3555

(e) None of these

Q344.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(6.99)^2 + (8.01)^2 - \sqrt{=?}$$

(a)95

(b)115

(c)110

(d)104

(e) None of these

Q345.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(\int \overline{-\int})^2 \div (\int \overline{-\int})^2 = ?$$

(a)4

(b)3

(c)6

(d)8

(e)10

Q346.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$1517.99 \div 46.12 + 636.898 \div (7.02)^2 = ?$$

(a)43

(b)46

(c)48

(d)49

(e) None of these

0347.

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

$$(16.993)^2 + (25.98)^2 - (3558.99 + 3244.89) \div (6.01)^2 =$$

(a)667

(b)767

(c)776

(d)676

(e) None of these

(a)288

(b)382

(c)120

.5

(d)282

(e) None, of these

Q349.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)191

(b)119

(c)181

(d)118

(e) None of these

Q350.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)534

(b)208

(c)329

(d)424

Q348

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(e)256

Q351.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$15.003^2 + 23.98^2 - (1282.998 + 578.898) + 6.89^2 = ?$$
(a)549

(b)678

(c)763

(d)-1012

(e)-718

Q352.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(1425.99/31.12) + 323.898 + 8.89^2 = ?$$

(a)542

(b)418

(c)450

(d)432

(e)451

Q353.

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

 $\frac{(I-I)}{(I-I)}=2$

(5 - 5)

(a)97

(b)58

(c)81

(d)72

(e)61

Q354.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(29.989% of 4530.11) - (22.04% of 4599.99) = ? +125.99

+125.99 (a) 289

(b)296

(c)278

(d)221

(e)323

Q355.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$16.02^2 + 144 + 23.96 + ? = 783.867$$

(a)316

(b)262

(c)258

(d)360

(e)344

Q356.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(2430/16) - 16.97 + \sqrt{?} = 164$$

(a)1089

(b)841

(c)1369

(d)289

(e)529

Q357.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(9601/11.98) \times \sqrt{+95.88} = ?$$

(a)17470

(b)17496

(c)18496

(d)18086

? % of (-) =
$$375.05$$

(a)80

(b)32

(c)98

(d)58

(e)132

Q360.

Find out the **approximate value** which should replace the **question mark** (?) in the following questions. (You are not expected to find out the exact value)

$$(1810/24.05) \times 7.95 + 11.02 \times 18.88 = ? -306$$

(a)1025

(b)1225

(c)1115

(d)1255

(e)1175

Q361.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

(a)6400

(**b**)5625

(c)900 (d)1600

(e)2025

Q362.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$24.98^2 \times \times 38.93 = 130 \times ?^2$$

(a)25

(b)45

(c)40

(d)30

(e)20

Q363.

(e)18156

Q358.

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Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$15.99 \times 9.89 - \sqrt{-17.001} \times 1.99 = ?^{2}$$
(a) 10

(b)11

(c)9

(d)12

(e) None of these

*Q*359.

Find out the **approximate** value which should replace the **question** mark (?) in the following questions. (You are not expected to find out the exact value)

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Find out the approximate value which should

replace the *question mark* (?) in the following questions. (You are not expected to find out the exact value)

71.98% of 1200 + 35.06% of 270 = ?% of 600 (a)140

(b)125

(c)120

(d)135

(e)160 Q364.

Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value)

$$(7702 / 43.96) + 25.11 \times 45.88 = ? \times 15$$

(a)88

(b)82

(c)68



(d)76 (e)72

```
ANSWERS:
                          4 a
                                 5 c
                                        6 d
             2 b
      1 e
                    3 c
      7 c
             8 b
                   9 e
                          10 d
                                 11 c
                                        12 d
      13 b
             14 a
                   15 e
                          16 b
                                 17 c
                                        18 a
                                 23 e
                                        24 d
      19 c
             20 c
                   21 b
                          22 c
      25 a
             26 b
                   27 a
                          28 e
                                 29 c
                                        30 d
      31 c
             32 b
                   33 a
                          34 d
                                 35 e
                                        36 c
      37 a
             38 b
                   39 e
                          40 b
                                 41 b
                                        42 d
      43 a
             44 e
                   45 c
                          46 c
                                 47 e
                                        48 a
      49 b
             50 d
                   51 d
                          52 e
                                 53 a
                                        54 c
                                 59 b
      55 b
             56 a
                   57 e
                          58 d
                                        60 c
      61 b
             62 e
                   63 c
                          64 c
                                 65 a
                                        66 d
                   69 c
                                 71 d
                                        72 e
      67 c
             68 e
                          70 a
      73 a
             74 c
                   75 b
                          76 d
                                 77 a
                                        78 b
      79 a
             80 e
                   81 e
                                 83 b
                                        84 c
                          82 c
      85 a
             86 b
                   87 c
                          88 d
                                 89 d
                                        90 c
      91 c
             92 e
                   93 a
                          94 d
                                 95 b
                                        96 d
      97 e
             98 a
                   99 c
                          100 c 101 c 102 d
      103 d 104 b 105 e 106 d 107 a 108 e
      109 c 110 b 111 d 112 b 113 a 114 b
      115 d 116 d 117 a 118 d 119 a 120 e
      121 c 122 a 123 a 124 d 125 d 126 c
      127 d 128 d 129 a 130 b 131 d 132 a
      133 d 134 c 135 e 136 c 137 c 138 a
      139 b 140 d 141 a 142 c 143 d 144 b
      145 b 146 a 147 a 148 b 149 b 150 e
      151 b 152 c 153 c 154 e 155 a 156 e
      157 a 158 e 159 b 160 c 161 a 162 c
      163 b 164 c 165 b 166 c 167 d 168 e
      169 b 170 b 171 a 172 a 173 c 174 d
      175 b 176 c 177 a 178 e 179 a 180 a
```

181 a 182 c 183 d 184 d 185 e 186 b 187 d 188 d 189 a 190 a 191 b 192 c

```
193 e 194 c 195 a 196 c 197 e 198 b
199 e 200 a 201 c 202 b 203 c 204 e
205 a 206 e 207 b 208 d 209 a 210 a
211 e 3212 b 3213 a 3214 b 3215 e 3216 e 3
217 a 3214 b 3219 c 3270 d 3221 e 3222 c 3
223 d 3224 e 3225 a 3226 b 3227 a 228 b
229 a 230 c 231 b 232 a 233 b 234 b
235 d 236 a 237 a 238 b 239 c 240 d
241 a 242 c 243 d 244 a 245 b 246 c
247 a 248 b 249 c 250 d 251 a 252 a
253 b 254 c 255 d 256 a 257 e 258 e
259 b 260 c 261 d 262 e 263 b 264 c
265 a 266 d 267 e 268 a 269 b 270 c
271 a 272 a 273 d 274 b 275 e 276 c
277 a 278 e 279 e 280 d 281 e 282 d
283 e 284 e 285 a 286 e 287 c 288 e
289 a 290 e 291 e 292 c 293 e 294 d
295 b 296 e 297 e 298 b 299 c 300 a
301 c 302 c 303 a 304 b 305 c 306 d
307 a 308 a 309 b 310 c 311 a 312 b
313 e 314 a 315 e 316 b 317 e 318 b
319 d 320 d 321 c 322 d 323 e 324 c
325 a 326 b 327 d 328 b 329 c 330 b
331 c 332 d 333 e 334 a 335 c 336 d
337 a 338 c 339 b 340 d 341 b 342 a
343 b 344 d 345 a 346 b 347 c
                                   348 d
```

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BASIC CALCULATION

135% of 342 - 342% of 13.5 = ?

15. $6\frac{2}{5} \times 5\frac{5}{8} \times 11\frac{11}{14} \div 6\frac{2}{7} = ?$

1.

Directions (Q. 1-5): What will come in place of question mark (?) in the following equations?

	(1) 411.13	(2) 412.23	(3) 413.33	(4) 414.43	(5) 415.53
2.	$\sqrt{13.3225} = ?$				
	(1) 3.45	(2) 3.55	(3) 3.65	(4) 3.75	(5) 3.85
3.	144 × 7 + 612 ×	4 = ?% of 12800			
	(1) 24	(2) 27	(3) 30	(4) 32	(5) 35
4.	$\frac{1859}{?} = \frac{?}{275}$				
	(1) 715	(2) 725	(3) 745	(4) 775	(5) 825
5.	36% of $\frac{17}{123}$ of $\frac{18}{4}$	$\frac{3}{1}$ of 25215 = ?			
	(1) 542.2	(2) 544.6	(3) 546.5	(4) 547.4	(5) 550.8
			ximate value s	hould come in plac	e of question mark (?) in
	ollowing equation				
6.		18.5% of 1319 = ? (2) 2630	(3) 2760	(4) 2890	(5) 3025
7			(3) 2700	(4) 2070	(3) 3023
7.	$\sqrt{5475} \div 4.98 = 6$? (2) 15	(3) 20	(4) 24	(5) 27
8.		+ 169.8% of 784 = ?		(4) 24	(5) 27
O.	(1) 2520	(2) 2610	(0) 0750	(4) 2870	(5) 2930
9.	43.03 × 27.96	+ 11.98 × ³ √42870	= ?		
	(1) 1625	(2) 1705	(3) 1775	(4) 1815	(5) 1855
10.	_				
	(1) 120	(2) 130	(3) 140	(4) 150	(5) 160
	Directions (Q.		* *		c (?) in the following
equa	tions?				
11.	$\frac{13}{8}$ of $\frac{15}{32}$ of 0.4	5% of 7168 = ?			
	(1) 23.27	(2) 24.57	(3) 25.12	(4) 26.87	(5) 28.42
12.		128 × 0.25) × 3.5 =		()	(=)
		(2) 3472.3	(3) 3564.6	(4) 3672.8	(5) 3706.5
13.	$\sqrt{?} = (78 \times 148) \div$	481			
	(1) 484		(3) 576	(4) 625	(5) 676
14.	(5546 ÷ 47 + 498	$84 \times 0.25) \div 11 = ?$			(=)

(1) 124 (2) 127 (3) 130 (4) 132 (5) 136

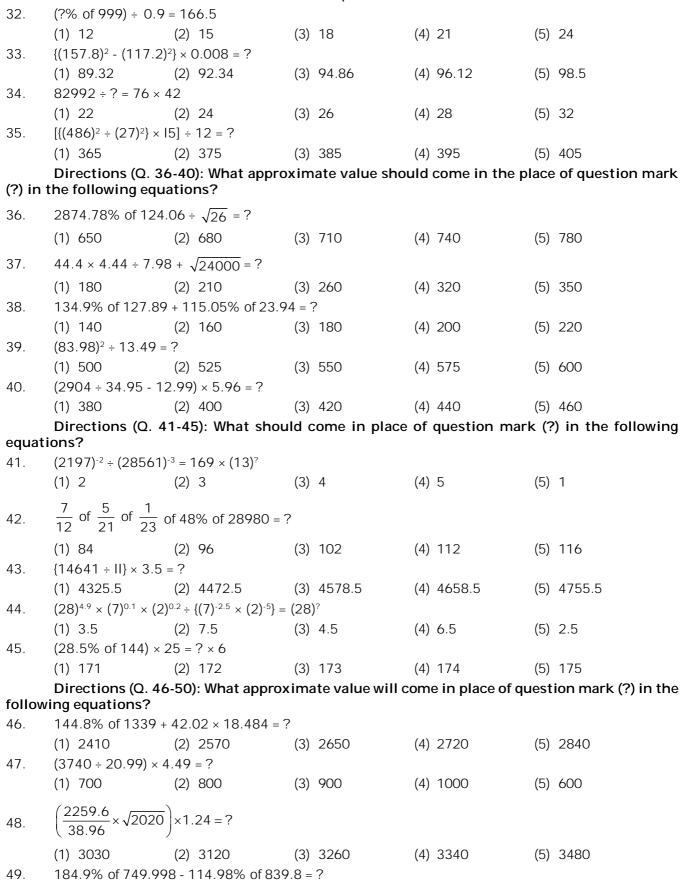
			3			
	(1) 63.5	(1) 64.5	=	(4) 66.5	(5) 67.5	
	Directions (Q. 16	6-20): What approx	imate value will c	ome in place of qu	uestion mark (?) in the	
follow	ing equations?					
16.	339% of 803 + 77	.8% of 1107 = ?				
	(1) 3175	(2) 3320	(3) 3580	(4) 3710	(5) 3950	
17.	$\sqrt{2300} \times \sqrt{240} = ?$?				
	(1) 685	(2) 705	(3) 815	(4) 745	(5) 635	
18.	14.03 × 27.489 -	8.749 × 16.04 = ?				
	(1) 210	(2) 250	(3) 295	(4) 325	(5) 350	
19.	119.003 × 14.987 + 21.04 × 13.96 = ?					
	(1) 2080	(2) 2120	(3) 2150	(4) 2175	(5) 2200	
20.	17.38% of 1557 -	21.012 × 8.97 = ?				
	(1) 50	(2) 80	(3) 110	(4) 140	(5) 175	
	Directions (Q. 21	-25) What will com	ne in place of ques	tion mark (?) in th	e following questions?	
21.	$\frac{1}{6}$ of (92)% of $1\frac{2}{2}$	$\frac{1}{3}$ of (650) = 85 + ?				
	(1) 18	(2) 21	(3) 19	(4) 28	(5) None of these	
22.	$92 \times 576 \div 2\sqrt{1296}$	$\overline{6} = (?)^3 + \sqrt{49}$				
	(1) 3	(2) (9) ²	(3) 9	(4) 27	(5) None of these	
23.	$3\frac{1}{4} + 2\frac{1}{2} - 1\frac{5}{6} = \frac{(?)^2}{10} + 1\frac{5}{12}$					
	(1) 25	(2) $\sqrt{5}$	(3) 625	(4) 15	(5) 5	
24.	$(\sqrt{8} \times \sqrt{8})^{\frac{1}{2}} + (9)^{\frac{1}{2}}$	$=(?)^3+\sqrt{8}-340$				
	(1) 7	(2) 19	(3) 18	(4) 9	(5) None of these	
25.	$(15 \times 0.40)^4 \div (108)$	$(30 \div 30)^4 \times (27 \times 8)^4 =$	$=(3\times2)^{?+5}$			
		(2) 3		(4) 16	(5) None of these	
				-	of the question mark	
(?) in t	the following que	stions? [You are n	ot expected to ca	lculate the exact	value.)	
26.	$\left(\frac{24}{9}\right)^2 \times \frac{399}{39} \div \frac{4}{89}$	$\frac{1}{19} = ?$				
27.		(2) 1650 13.99% of 1299 = 3	(3) 1700	(4) 1550	(5) 1750	

29.
$$5998 \div 9.98 + 670.99 - 139.99 = ?$$

30.
$$-(4.99)^3 + (29.98)^2 - (3.01)^4 = ?$$

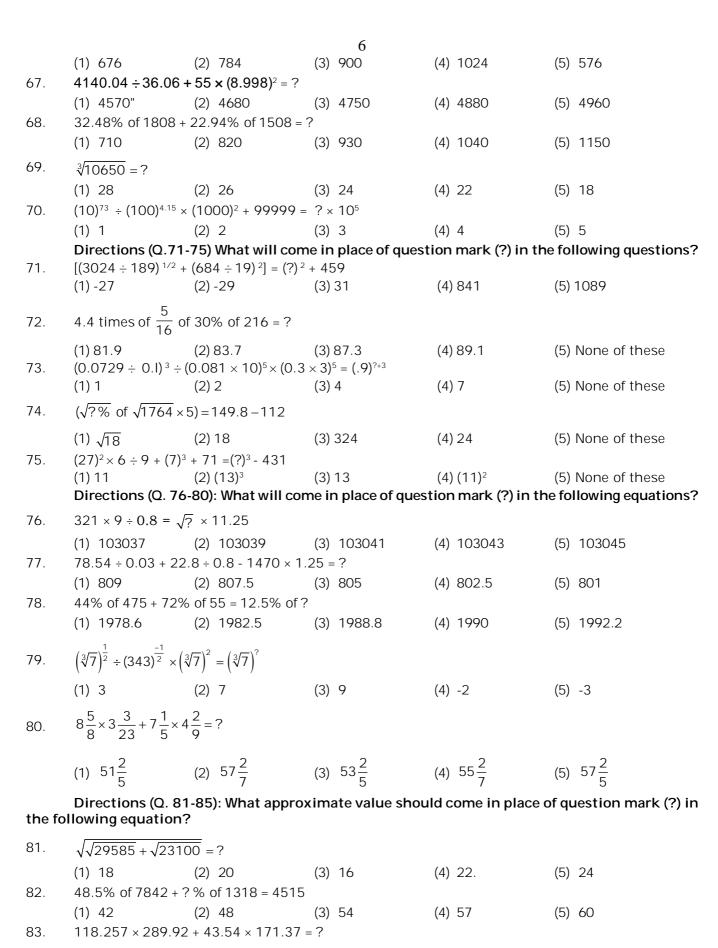
Directions (Q. 31-35): What will come in place of question mark (?) in the following equations?

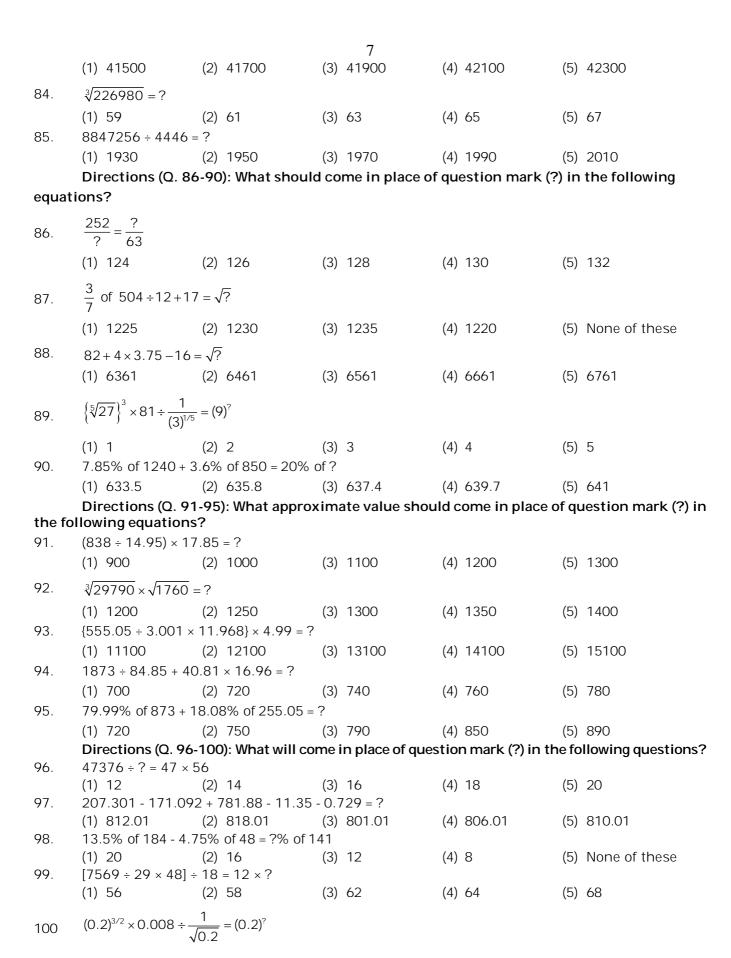
31.
$$1664 \times 1.75 + 1008 \times 1.25 - 1220 \times 0.65 = ?$$



Directions (Q. 66-70): What approximate value should come in place of question mark (?) in the following equations?

66. $(48.048 \div 11.91 \text{ I}) \times \sqrt{?} = 112.012$

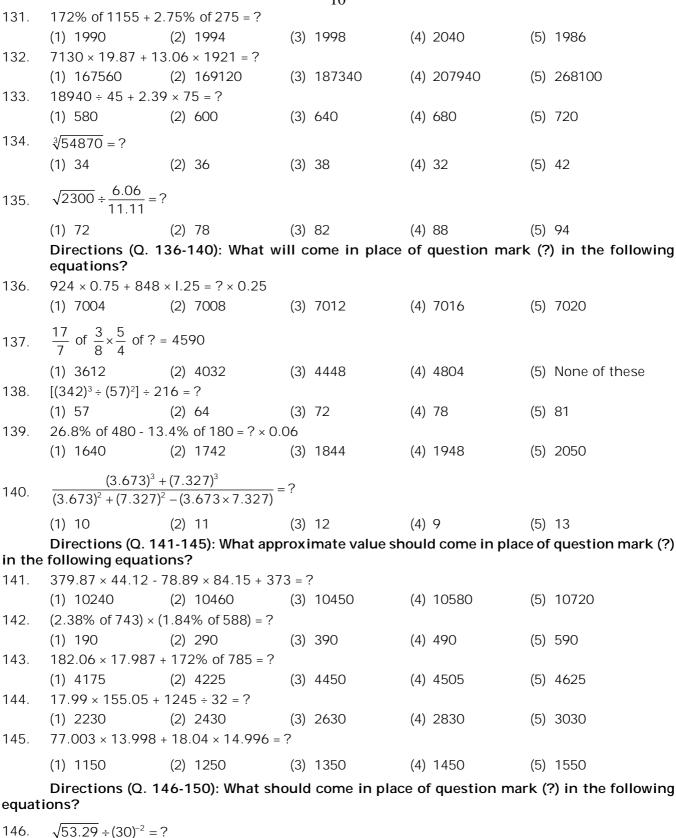




(1) 1(2) 2(3) 3(4) 4(5) 5Directions (Q. 101-105): What approximate value should come in place of question mark (?) in the following equations? $\sqrt{4355} + \frac{1204.04}{6.978} \times 14.95 = ?$ 101. (1) 2650 (2) 2550 (3) 2450 (4) 2350 (5) 2250 217% of 8458 = ? 102. (1) 18150 (2) 18350 (3) 18550 (4) 18750 (5) 18950 103. $\sqrt{3020} \times ? = 64400$ (1) 1130 (2) 1150 (3) 1170 (4) 1190 (5) 1210 104. $45.145 + 13.92 \times 15.05 + 148.08 \div 3.97 = ?$ (2) 250 (3) 290(5) 350 (4) 320 105. 148% of $1749 - 14.99 \times 16.02 = ?$ (5) 2550 (1) 2150 (2) 2250 (3) 2350 (4) 2450 Directions (Q. 106-110): What will come in place of question mark (?) in the following equations? 106. $34.2 \times 17.4 \times 1.5 = 2 \times ?$ (2) 440.62 (1) 432.12 (3) 446.31 (4) 448.32 (5) 452.4 $(7776)^{1.3} \times (36)^{1.25} \div (216)^2 \div (1296)^{-1} = 6$? 107. (2) 4 (4) 6 (5) 7108. $\sqrt{1.8225} \times \sqrt{70.56} = ?$ (1) 11.34 (2) 9.72 (3) 12.46 (4) 8.84 (5) None of these 30% of $\frac{5}{7}$ of $\frac{3}{13}$ of $\frac{16}{15}$ of 10920 = ? 109. (3) 524 (4) 576 (5) 590 $3\frac{5}{7} \times 11\frac{2}{3} + 4\frac{5}{42} \div \frac{13}{5} \times 259.5 = ?$ 110. (2) 1050 (3) 1130 (4) 1280 (5) 1520 Directions (Q. 111-115): What approximate value should come in place of question mark (?) in the following equations? $(0.00072 \div 0.000015) \div 5.00005 = ?$ (1) 130(2) 190 (3) 240 (4) 280 (5) 310 112. 137% of I285 = ? (1) 1340 (2) 1510 (3) 1660 (4) 1760 (5) 1790 113. $\sqrt{2300} = ?$ (1) 42 (2) 44 (3) 46 (4) 48 (5) 393.068% of 798 + 5.958% of 1089 = ?114. (1) 75 (2) 90 (3) 110 (4) 60 (5) 125 115. $13.023 \times 102.68 + 197.68 \times 12.05 = ?$ (1) 3500 (2) 3600 (3) 3700 (4) 3800 (5) 3900

in the following equations?

Directions (Q. 131-135): What approximate value should come in place of question mark (?)



(4) 4540

(5) None of these

(3) 5670

(1) 7240

147.

(2) 6570

13% of 1335 + ?% of 1135 = 366.5

Directions (Q. 156-160): What should come in place of question mark (?) in the following

156.
$$\{(247.4)^2 - (112.6)^2\} \times (80)^{-2} = ?$$

157.
$$\{11.8\% \text{ of } 4450 + 22.5\% \text{ of } 1680\} \times 40 = ?$$

158.
$$\frac{7}{15}$$
 of $\frac{12}{11}$ of $\frac{1}{5}$ of 7425 = ?% of 5400

159.
$$\frac{735}{?} = \frac{?}{135}$$

$$(2)$$
 285

$$(5)$$
 315

160.
$$(1085)^2 = (10)^6 + ?$$

(5) None of these

Directions (Q. 161-165): What approximate value should come in place of question mark (?) in the following equations?

161.
$$872 \times 7 \times ? = 336633$$

$$(5)$$
 68

12 (2) 235 (1) 205 (3) 275 (4) 255 (5) 175 $113.03 \times 14.969 - 12.08 \times 8.98 = ?$ 163. (1) 1600 (2) 1650 (3) 1590 (4) 1680 (5) 1800 164. $\sqrt[3]{389000} = ?$ (1) 71 (2) 73 (3) 75 (4) 77 (5) 67 $\frac{7640.16}{120.08} \times \sqrt{1220} = ?$ 165. (1) 2014 (2) 2056 (3) 2226 (4) 2486 (5) 2894 Directions (Q. 166-180): What should come in place of question mark (?) in the following questions? 166. $? \div 0.5 \times 24 = 5652$ (3) 171.25 (1) 171.75 (2) 117.25 (4) 117.75 (5) None of these 167. $5 \times ? = 4808 \div 8$ (1) 122.2 (2) 112.2 (3) 120.2 (4) 102.2 (5) None of these 168. 65% of 654 - ?% of 860 = 210.1(4) 30 (2) 15 (3) 20 (5) None of these 35154 - 20465 - 5201 = ? 169. (1) 9488 (2) 9844 (3) 9484 (4) 9848 (5) None of these 170. $\frac{8}{13} \div \frac{192}{559} = ?$ (1) $1\frac{19}{24}$ (3) $2\frac{17}{28}$ (4) $3\frac{17}{2}$ (5) None of these 243 × 124 - 25340 = ? 171. (2) 4792 (3) 4972 (1) 4729 (4) 4927 (5) None of these 172. $92 \div 8 \div 2 = ?$ (2) 5.75 (3) 4.25 (4) 5.25 (1) 4.75 (5) None of these $(121)^3 \times 11 \div (1331)^2 = (11)^7$ 173. (1) 3(3) 1 (4) 0 (5) None of these 283.56 + 142.04 + 661.78 = ? 174. (2) 1087.28 (3) 1080.38 (4) 1082.48 (1) 1084.28 (5) None of these $7028 \div 25 = ?$ 175. (1) 218.12 (2) 281.21 (3) 218.21 (4) 282.12 (5) None of these 176. $390.5 \times \sqrt{?} = 284 \times 22$ $(1) (256)^2$ (2) 16 (3) $\sqrt{16}$ (4) 256 (5) None of these 177. $12.5 \times 8.4 \times 7.6 = ?$ (3) 799 (4) 789 (1) 787 (2) 788 (5) None of these 178. $4477 \div (44 \times 5.5) = ?$ (1) 24.5 (2) 21.5 (3) 16.5 (4) 18.5 (5) None of these 33.5% of 250 = ? 179. (1) 76.25 (2) 82.25 (3) 78.75 (4) 83.75 (5) None of these 180. $\frac{1}{2}$ of $\frac{3}{5}$ of $\frac{4}{9}$ of 5820 = ?

(1) 766 (2) 777 (3) 776 (4) 767 (5) None of these Directions (Q. 181-185): What value should come in place of question mark (?) in the following equations? 24.5% of 48 + 8.4% of 125 = ?% of 139.125 181. (2) 14 (4) 18 (5) 20 $\frac{24.84 \div ?}{0.2 \times 0.03} = 300$ 182. (2) 13.8 (3) 14.5 (4) 16 (5) 18.8 $\frac{8}{13}$ of $\frac{7}{3}$ of 12.5% of 13728 = 320% of ? 183. (2) 756 (4) 770 (5) 780 $(1296)^{3.8} \times (216)^{-4} \div \frac{1}{7776} = (36)^{?}$ 184. (3) 4.8 (4) 5.6 (5) 2.8 185. $\sqrt{6084} \div \sqrt[3]{2197} = \sqrt[3]{?}$ (2) 125 (3) 216 (4) 343 Directions (Q. 186-190): What approximate value should come in place of question mark (?) in the following equations? 186. $\sqrt{730} + \sqrt{3365} = ? \times 4.936$ (2) 15 (3) 17 (4) 19 (5) 21 $7824 \div 47.87 + 3236 \div 57.011 = ?$ 187. (3) 240 (4) 260 (5) 280 2.8% of 312 + 1.2% of 416 = ?188. (3) 14 (2) 18 (4) 10 (5) 6 189. $189.089 \times 3.27 + 4.004 \times 111.819 = ?$ (1) 1015 (2) 1035 (3) 1065 (4) 1085 (5) 2005 190. $(324\% \text{ of } 5842) \div 194.79 = ?$ (2) 79(4) 97 (5) 102 (3) 85. Directions (Q. 191-195): What value should come in place of question mark(?) in the following questions? $(1089)^{2.8} \div (33)^{-3.4} \times \frac{1}{35937} = (1089)^{?}$ (1) 1(3) 3(4) 4 (5) 5 $1.4641 \div 0.0011 = ?$ 192. (2) 11 (3) 121 (4) 1331 (5) 14641 3.6% of 180 + 2.4% of 555 = ?% of 49.5193. (2) 60 (3) 80 (4) 100 (5) 120 $\frac{7}{9}$ of $\frac{4}{3}$ of 78% of 4950 = ? 194. (1) 4004 (2) 4008 (3) 4012 (4) 4016 (5) 4020 195. $7.25 \times 244 - 2.75 \times 148 = 1.2 \times ?$ (1) 1125 (2) 1135 (3) 1145 (4) 1155 (5) 1165 Directions (Q. 196-200): What approximate value should come in place of question mark (?) in the following equations? 196. $\sqrt[3]{54870} \times \sqrt{1220} = ?$ (1) 1310 (2) 1320 (3) 1330 (4) 1340 (5) 1350

			14		
197.	(445% of 336) ÷ 4. (1) 200	98 = ? (2) 300	(3) 400	(4) 500	(5) 600
198.	(8754 ÷ 6.05) × 4.9 (1) 7000	98 = ?			
199.	185% of 1240 + 62	2.002 × 14.995 = ?	(3) 7600	(4) 7900	(5) None of these
200.	(1) 3205 548.78 ÷ 10.99 × 8	(2) 3215 8.48 = ?	(3) 3225	(4) 3240	(5) 3255
	(1) 325	(2) 350	(3) 375	(4) 400	(5) 425
		1-205) : What value	should come in p	lace of question m	ark (?) in the following
questi	ons?				
201.	$3\frac{2}{5} \times 7\frac{5}{8} \div 2\frac{1}{3} \times 3\frac{1}{2}$	$\frac{1}{2} \times 3\frac{1}{5} = ?$			
202.	(1) 121.32 $77.8 \times 0.8 \times ? = 96$	(2) 122.82 64.72	(3) 123.74	(4) 124.44	(5) 125.5
	(1) 13.5	(2) 14.5	(3) 15.5	(4) 16.5	(5) 17.5
203.	$\sqrt{17.64} \times \sqrt{14.062}$		(-)		(-)
	(1) 105	(2) 115	(3) 125	(4) 135	(5) 145
204.	$\frac{7}{15}$ of $\frac{5}{27}$ of 45% of	of 1593 = 2.1×?			
	(1) 29.5		(3) 27.5	(4) 26.5	(5) 25.5
205.	$(357.911)^{\frac{2}{3}} \times (50.4)^{\frac{2}{3}}$				
	(1) 5	(2) 4	• •	(4) 2	(5) 1
in the			roximate value sh	ould come in plac	e of question mark (?)
	following questio				
206.	$\sqrt{6890} + \sqrt[3]{50650}$		(2) 11/	(4) 110	(F) 120
	(1) 112	(2) 114	(3) 116	(4) 118	(5) 120
207.	(1) 112 (669.76 + 29.96 × (1) 150	(2) 114 35.05) ÷ 6.04 = ? (2) 290	(3) 116(3) 370	(4) 118(4) 420	(5) 120(5) 460
207.208.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160	(3) 370 (3) 270		
207.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90 228% of 450 + 849	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116	(3) 370 (3) 270 = ?	(4) 420(4) 320	(5) 460(5) 375
207.208.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630	(3) 370 (3) 270	(4) 420	(5) 460
207.208.209.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90 228% of 450 + 849 (1) 360	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630	(3) 370 (3) 270 = ?	(4) 420(4) 320	(5) 460(5) 375
207.208.209.210.	(1) 112 $(669.76 + 29.96 \times (1) 150$ $(44.99)^2 \div 7.538 = (1) 90$ 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18	(3) 370 (3) 270 =? (3) 625 (3) 7	(4) 420(4) 320(4) 530(4) 12	(5) 460(5) 375(5) 620
207. 208. 209. 210. questi	(1) 112 $(669.76 + 29.96 \times (1) 150$ $(44.99)^2 \div 7.538 = (1) 90$ 228% of 450 + 849 (1) 360 $361 \times 5.96 \times ? = 1$ (1) 3 Directions (Q.21 ons?	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will	(3) 370 (3) 270 =? (3) 625 (3) 7	(4) 420(4) 320(4) 530(4) 12	(5) 460(5) 375(5) 620(5) 15
207.208.209.210.	(1) 112 $(669.76 + 29.96 \times (1) 150$ $(44.99)^2 \div 7.538 = (1) 90$ 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will 5 = ? × 116	(3) 370 (3) 270 =? (3) 625 (3) 7	(4) 420(4) 320(4) 530(4) 12	(5) 460(5) 375(5) 620(5) 15
207. 208. 209. 210. questi	(1) 112 $(669.76 + 29.96 \times (1) 150$ $(44.99)^2 \div 7.538 = (1) 90$ 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21 ons? 4003 × 77 - 21015	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will 5 = ? × 116 (2) 2478	(3) 370 (3) 270 = ? (3) 625 (3) 7 come in place of	(4) 420(4) 320(4) 530(4) 12the question man	(5) 460 (5) 375 (5) 620 (5) 15 rk (?) in the following
207.208.209.210.questi 211.	(1) 112 $(669.76 + 29.96 \times (1) 150$ $(44.99)^2 \div 7.538 = (1) 90$ 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21 ons? 4003 × 77 - 21015 (1) 2477	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will 5 = ? × 116 (2) 2478	(3) 370 (3) 270 = ? (3) 625 (3) 7 come in place of	(4) 420(4) 320(4) 530(4) 12the question man	(5) 460 (5) 375 (5) 620 (5) 15 rk (?) in the following
207.208.209.210.questi 211.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21 ons? $4003 \times 77 - 21015$ (1) 2477 $[(5\sqrt{7} + \sqrt{7}) \times (4\sqrt{7} + \sqrt{7})]$ (1) 143	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will $5 = ? \times 116$ (2) 2478 $+ 8\sqrt{7}$] $- (19)^2 = ?$ (2) $72\sqrt{7}$ ÷ 25) + (3991 ÷ 26)	(3) 370 (3) 270 =? (3) 625 (3) 7 come in place of (3) 2467 (3) 134	(4) 420 (4) 320 (4) 530 (4) 12 the question ma (4) 2476	(5) 460 (5) 375 (5) 620 (5) 15 rk (?) in the following (5) None of these
207. 208. 209. 210. questi 211. 212.	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21 ons? $4003 \times 77 - 21015$ (1) 2477 $[(5\sqrt{7} + \sqrt{7}) \times (4\sqrt{7} + \sqrt{7})]$ (1) 143 (4444 ÷ 40) + (645) (1) 280.4	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 -1116 = (2) 630 5227 (2) 18 1-215) What will $5 = ? \times 116$ (2) 2478 $+ 8\sqrt{7}$] $- (19)^2 = ?$ (2) $72\sqrt{7}$ ÷ 25) + (3991 ÷ 26)	(3) 370 (3) 270 =? (3) 625 (3) 7 come in place of (3) 2467 (3) 134 =?	(4) 420 (4) 320 (4) 530 (4) 12 the question man (4) 2476 (4) $70\sqrt{7}$	(5) 460 (5) 375 (5) 620 (5) 15 rk (?) in the following (5) None of these
 207. 208. 209. 210. questi 211. 212. 213. 	(1) 112 (669.76 + 29.96 × (1) 150 (44.99) ² ÷ 7.538 = (1) 90 228% of 450 + 849 (1) 360 361 × 5.96 × ? = 1 (1) 3 Directions (Q.21 ons? $4003 \times 77 - 21015$ (1) 2477 $[(5\sqrt{7} + \sqrt{7}) \times (4\sqrt{7} + \sqrt{7})]$ (1) 143 (4444 ÷ 40) + (645) (1) 280.4	(2) 114 35.05) ÷ 6.04 = ? (2) 290 ? (2) 160 % of 844.98 - 1116 = (2) 630 5227 (2) 18 1-215) What will $5 = ? \times 116$ (2) 2478 $+ 8\sqrt{7}$] $- (19)^2 = ?$ (2) $72\sqrt{7}$ ÷ 25) + (3991 ÷ 26) (2) 290.4	(3) 370 (3) 270 =? (3) 625 (3) 7 come in place of (3) 2467 (3) 134 =?	(4) 420 (4) 320 (4) 530 (4) 12 the question man (4) 2476 (4) $70\sqrt{7}$	(5) 460 (5) 375 (5) 620 (5) 15 rk (?) in the following (5) None of these

215.
$$5\frac{17}{37} \times 4\frac{51}{52} \times 11\frac{1}{7} + 2\frac{3}{4} = ?$$

(1) 303.75 (2) 305.75 (3) 303 $\frac{3}{4}$ (4) 305 $\frac{1}{4}$ (5) None of these Directions (0.216-220) What approximate value should come in place of the question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

216. $8787 + 343 \times \sqrt{50} = ?$
(1) 250 (2) 140 (3) 180 (4) 100 (5) 280

217. $\sqrt[3]{54821} \times (303 + 8) = ??^2$
(1) 48 (2) 38 (3) 28 (4) 18 (5) 58

218. $\frac{5}{8}$ of 4011.33 + $\frac{7}{10}$ of 3411.22 = ?
(1) 4810 (2) 4980 (3) 4890 (4) 4930 (5) 4850

219. 23% of $6783 + 57\%$ of $8431 = ?$
(1) 6460 (2) 6420 (3) 6320 (4) 6630 (5) 6360

220. $335.01 \times 244.99 + 55 = ?$
(1) 1490 (2) 1550 (3) 1420 (4) 1590 (5) 1400 Directions (0. 221-225): What value should come in place of question mark (?) in the following questions?

221. $\sqrt[7]{} = (153 \times 46) + 18$
(1) 149769 (2) 151321 (3) 152881 (4) 154449 (5) None of these 222. $(3834 + 27) \times (3920 + 112) = ?$
(1) 4410 (2) 24430 (3) 4560 (4) 4750 (5) 4970 223. 2.8% of $1220 + 7.4\%$ of $780 = ?$
(1) 840 (2) 990 (3) 1080 (4) 1200 (5) 1250 224. $0.6 \times 2.8 \times 3.5 + 0.0049 = ?$
(1) 840 (2) 990 (3) 1080 (4) 1200 (5) 1250 225. 30% of $\sqrt{15625} + 70\%$ of $\sqrt[3]{375} = ?$
(1) 480 (2) 290 (3) 230 (4) 240 (5) 250 227. $688.612 + 119.19 \times 21.86 + 79.54 = ?$
(1) 200 (2) 200 (3) 230 (4) 240 (5) 250 227. $688.612 + 119.19 \times 21.86 + 79.54 = ?$
(1) 100 (2) 200 (3) 230 (4) 240 (5) 250 227. $688.612 + 119.19 \times 21.86 + 79.54 = ?$
(1) 100 (2) 200 (3) 200 (4) 200 (5) 3400 (5) 3400 228. $612.98 + 15.05 + 6.12 = ?$
(1) 10 (2) 20 (3) 20 (4) 20 (5) 30 (5) 30 (5) 30 (6) 30 (7) 30 (2) 30 (3) 30 (4) 30 (5) 30 (5) 30 (5) 30 (7) 30 (7) 30 (8) 30 (

233.
$$\frac{8.5}{0.25} + \frac{4.4}{0.2} = ?\% \text{ of } 80$$
(1) 60 (2) 64 (3) 70 (4) 75 (5) 80

234. $\frac{3}{3} \text{ of } \frac{4}{7} \text{ of } \frac{1}{1} \text{ of } 21175 = 2^2 \times 3^2 \times ?$
(1) 45 (2) 48 (3) 51 (4) 54 (5) 55

235. $\left[\sqrt[3]{83521} \right]^{\frac{3}{2}} = ?$
(1) 13 (2) 17 (3) 21 (4) 23 (5) 29
Directions (0. 236-240): What approximate value should come in place of question mark (?) in the following questions?
(1) 1270 (2) 1350 (3) 1490 (4) 1530 (5) 1610

237. $\sqrt{1220} \times 16.06 + \sqrt{4897} = ?$
(1) 610 (2) 620 (3) 630 (4) 640 (5) 650

238. $18.08 \times 11.899 + 22.922 \times 14.94 = ?$
(1) 610 (2) 650 (3) 540 (4) 580 (5) 610

239. $(2284.85 + 4.985 + 17.126) + 6.06 = ?$
(1) 610 (2) 650 (3) 470 (4) 480 (5) 490
Directions (0. 241-245): What value should come in place of question mark (?) in the following questions?

241. $(2401)^{\frac{3}{24}} + \frac{1}{344} + (49)^{\frac{3}{2}} = (7)^{\frac{3}{2}}$
(1) 2 (2) 1 (3) 1 (4) 2 (5) 3

242. $28.2\% \times 125 + 7.8\% \times 175 + 20\% \times 17$
(1) 2 (2) 4 (3) 6 (4) 1 (5) 52

243. $\sqrt[3]{7576} \times 676 \times \sqrt[3]{(2197)^2} = (4096)^{\frac{3}{2}}$
(1) 1355 (2) 13535 (3) 13545 (4) 1355 (5) 13565
Directions (0. 246-250): What approximate value should come in place of question mark (?) in the following questions?

246. $[(5.75)^2 \times 4.996] + 11.04 = ?$
(1) 1355 (2) 13535 (3) 13545 (4) 1355 (5) 13565
Directions (0. 246-250): What approximate value should come in place of question mark (?) in the following questions?

248. $[(5.75)^2 \times 4.996] + 11.04 = ?$
(1) 1015 (2) 1025 (3) 1035 (4) 1045 (5) 1055

248. $[(5.75)^2 \times 4.996] + 11.04 = ?$
(1) 150 (2) 175 (3) 200 (4) 25 (5) 250

249. $[(644.96 + 14.99 + 1.399) \times 15.966 = ?$
(1) 150 (2) 175 (3) 200 (4) 25 (5) 250

250. $22.22 \times 33.3 \times 0.44 = ?$ (2) 315 (3) 320 (4) 325 (5) 330 Directions (Q. 251-255): What should come in place of question mark(?) in the following questions? 7.12% of 8500 - 3.6% of 5500 = 1.6% of? 251. (1)25410(2)25420(4) 25440 (5)25450 $\frac{13}{17}$ of $\frac{12}{19}$ of 47% of 40375 = ? × 6 252. (3) 1528.5 (1) 1525.5(4) 1529.5(2) 1527.5(5)1530 $\frac{4608}{?} = \frac{?}{5202}$ 253. (2)4848(3)4872(4) 4896 (5)4904 $(142.8 \div 2.4) \times 7.5 \div 0.15 = ?$ 254. (2)2850(3)2975(4) 3025 (5)3150 $(7.2)^{3.2} \times \frac{1}{(7.2)^{1.6}} \div (51.84)^{-1.8} \times (51.84)^{-1.2} = (7.2)^{?}$ 255. (1) 2.4(4) - 2.4(2) 2.8(3) - 1.2(5) None of these $\label{lem:constraint} \textbf{Directions}~(\textbf{Q}.~256\text{-}260): \textbf{What approximate value should come in place of question mark in}$ the following questions? $1144.98 \times 5.85 \times 3.2 \div 12 = ?$ 256. (1) 1600 (2)1790(3)1800(4)2200(5)2400257. $112.21 \times 132.52 \times 4.793 \div 17.998 = ?$ (2)3780(4) 3900 (5)3960258. $27.77 \times 35.012 \times 4.88 \div 24.985 + \sqrt{35} = ?$ (2)200(3)220(4) 240(5)260259. 27% of 5678 - 37% of 2345 = ?(1)620(2)635(3)650(4)665(5)680260. 648% of $\sqrt{429020} = ?$ (2)4150(1)4050(3)4250(4) 4350(5)4450Directions (Q. 261-265): What value should come in place of question mark(?) in the following questions? 7.8% of 275 + 3.2% of 155 = 1% of? 261. (1)2640(3) 2642(4) 2643(5)2644262. $\frac{12}{19}$ of $\frac{7}{5}$ of 45% of 8075 = ? (1)3194(2)3199(3)3207(4)3213(5)3228263. $\frac{4}{13}$ of 2379 + $\frac{2}{15}$ of 2265 = 20% of? (2)5160(3)5170(4) 5180 (5)5190 $(4913)^{\frac{2}{3}} \times (2197)^{\frac{2}{3}} = 221 \times ?$ 264. (2)221 $(3)(221)^2$ $(4)(221)^3$ (5) None of these 65% of 132 + 12.5% of $57.6 = ? \times 3$ 265. (3)32(4) 33(5)34(2)31Directions (Q. 266-270): What approximate value should come in place of question mark (?)

in the following questions?

266.
$$148\%$$
 of 13785 = ?

(1) 20100 (2) 20200 (3) 20300 (4) 20400 (5) 20500

267. $\sqrt{1445} + \frac{8.01}{6.994} \times 168.08 = ?$

(1) 210 (2) 220 (3) 230 (4) 240 (5) 250

268. $\sqrt{24000} \times 36.06 \times 174.98 \times 3.99 = ?$

(1) 6180 (2) 6280 (3) 6380 (4) 6480 (5) 6580

269. $4488 \times \sqrt{1935} \times 171.991 \times 3.998 = ?$

(1) 105 (2) 125 (3) 145 (4) 165 (5) 185

270. (1884% of 73) $\times 25.05 = ?$
(1) 35 (2) 45 (3) 55 (4) 65

Directions (0. 271-275) : What will come in place of question mark(?) in the following questions?

271. $(\sqrt{5} - \sqrt{10})^{24}(\sqrt{2} + 5)^2 = (?)^2 - 22$
(1) $\sqrt{2}$ (2) 2 (3) 16 (4) 8 (5) None of these

272. 55% of $\sqrt{2116} \times 0.01 = ? \times 20$
(1) 126.5 (2) 126.6 (3) 124.6 (4) 18 (5) None of these

273. $\sqrt{12^2 \times 16 \times 24 + 193 + 7 \times 5} = (?)^2$
(1) $3\sqrt{2}$ (2) $4\sqrt{2}$ (3) $5\sqrt{2}$ (4) 18 (5) 32

274. $\sqrt{31.36} \times \sqrt{0.04} \times 252 = (?)^2 \times 36$
(1) 81 (2) 64 (3) -8 (4) -7 (5) 9

275. (1.69) $^4 \times (2197 + 1000)^2 \times (0.13 \times 10)^3 = (1.3)^{22}$
(1) 6 (2) 2 (3) 4 (4) 0 (5) None of these

Directions (0. 276-280) : What approximate value will come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value.)

276. 68% of 1288 + 26% of 734 + 215 = ?
(1) 670 (2) 530 (3) 540 (4) 850 (5) 710

277. (32.05) $\times (18.9)^2 \times (11.9)^2 = ?$
(1) 670 (2) 530 (3) 420 (4) 780 (5) 960

278. $6578 \times 67 \times 15 \times 7 \times 6$
(1) 540 (2) 250 (3) 150 (4) 100 (5) 300

279. $\frac{679}{45} \times \frac{23}{2130} \times \frac{126}{169} = ?$
(1) 540 (2) 910 (3) 1320 (4) 1120 (5) 1550

Directions (O. 281-285) : What value should come in place of question mark (?) in the following questions?

(1) 60 (2) 210 (3) (4) 1120 (5) 1550

Directions (O. 281-285) : What value should come in place of question mark (?) in the following questions?

(3) 1.728

 $(1.2)^{1.7} \times (1.44)^{0.7} \div (1.44)^{-1.45} \div (1.728)^2 = ?$

(2) 1.44

282.

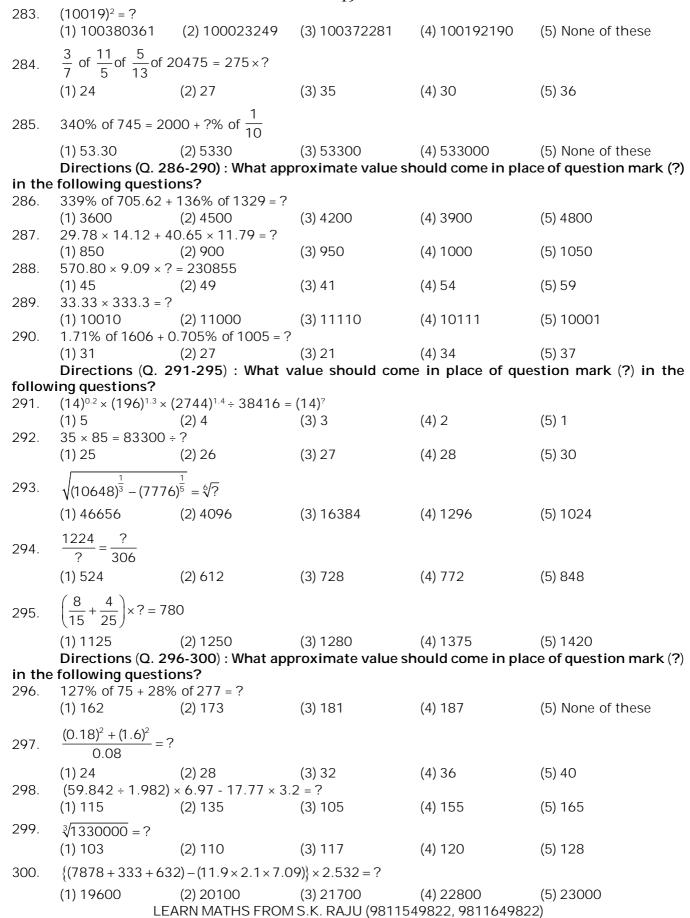
(1) 1.2

(4) 6.2

(4) 2.0736

(5)6.4

(5) None of these



Directions (Q. 301-305): What value should come in place of question mark(?) in the following questions?

301.
$$(17)^{8/8} \times (289)^{-14} + \frac{1}{(17)^{-1}} = 17 \times (17)^{7}$$

(1) 2 (2) 3 (3) 4 (4) 5 (5) 6

302. 2.4% of 775 + 8.4% of 525 = 30% of? (1) 201 (2) 203

303. $(0.00102 + 0.000017) \times 17.75 = ?$
(1) 1045 (2) 1055 (3) 1065 (4) 1075 (5) 1085

304. $(1728)^{\frac{3}{2}} + (5832)^{\frac{7}{3}} = 7 \times 9$
(1) 5184 (2) 7776 (3) 3888 (4) 11664 (5) 10368

305. $(1260 + 28) \times 6.4 = 45\% \text{ of?}$
(1) 320 (2) 640 (3) 960 (4) 1280 (5) 1510

Directions (0. $306 - 310$): What approximate value should come in place of question mark in the following questions? %

306. $159 \times 16 \times 7 = 20300$
(1) 6 (2) 8 (3) 10 (4) 12 (5) 15

307. $(141.98 \times 72.02) \div \sqrt{1300} = ?$
(1) 21 (2) 245 (3) 285 (4) 325 (5) 355

308. $2.81\% \text{ of } 1724.98 + 1.739\% \text{ of } 55.05 = ?$
(1) 24 (2) 39 (3) 58 (4) 72 (5) 84

309. $(1369.876 + 18.98 \times 19.98) \times 24.96 = ?$
(1) 70 (2) 90 (3) 110 (4) 130 (5) 150

310. $(7391.9 + \sqrt{1935}) + (17.98 \times 4.49) = ?$
(1) 200 (2) 225 (3) 250 (4) 275 (5) 300

Directions (0. $311-320$): What value should come in place of question mark (?) in the following questions?

311. $85\% \text{ of } \frac{4}{7} \text{ of } 6755 = ? + 1687$
(1) 1586 (2) 1592 (3) 1594 (4) 1582 (5) None of these

313. $\sqrt{13^2 + 28 + 4 - (3)^3 + 107} = (?)^2$
(1) 256 (2) 4 (3) $\sqrt{2}$ (4) 16 (5) None of these

314. $(0.49)^4 \times (0.343)^3 + (0.2401)^4 = (70 + 100)^{3-2}$
(1) 3 (2) (1) (3) 4 (4) 7 (5) None of these

315. $45\% \text{ of } \sqrt{2025} \div 0.01 = (?)^2 + 25$
(1) 3 (2) $(81)^2$ (3) 81 (4) 9 (5) None of these

316. Which of the following is the second larges?
(1) 30.4 (4) 49 (5) None of these

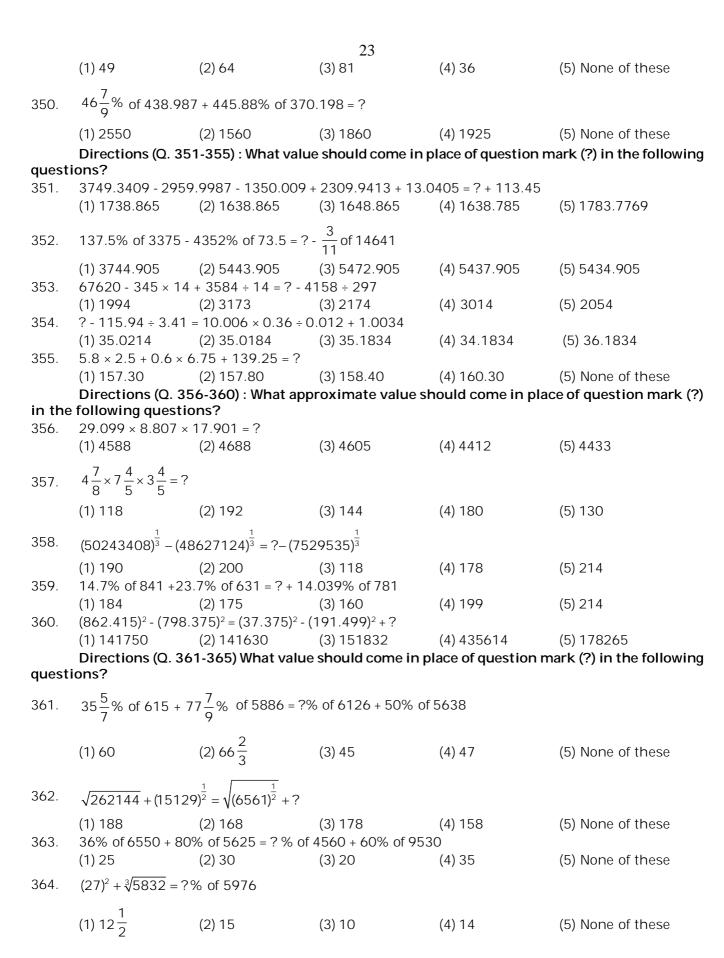
317. $45\% \text{ of } \sqrt{2025} \div 0.01 = (?)^2 + 25$
(1) 3 (2) $(81)^2$ (3) 81 (4) 9 (5) None of these

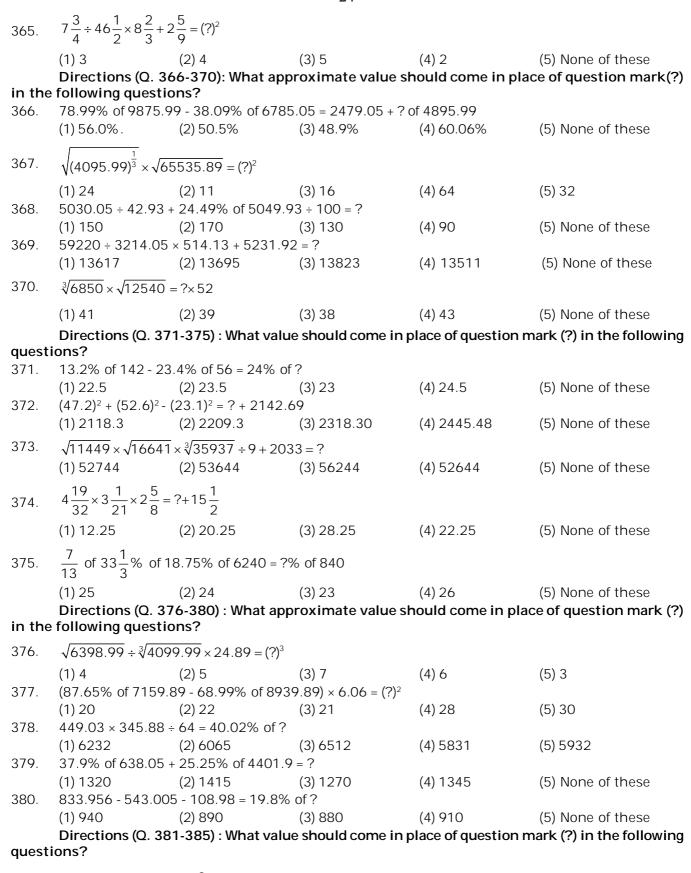
- 317. Which is the following is the largest? (You are not expected to calculate the exact value.) (1) $(56 \times 15) \div 4^2$ (2) $(25 \times 72) \div 6^2$ (3) $(6 \times 441) \div 7^2$ (4) $(28 \times 78) \div 56$ (5) $(32 \times 48) \div 26$
- 318. Which of the following is the smallest? (You are not expected to calculate the exact value.)

$$(1) \left(\frac{5}{9} \text{ of } 1250\right)^2 (2) \left(\frac{7}{13} \text{ of } 4112\right)^2 (3) \left(\frac{5}{19} \text{ of } 3221\right)^2 (4) \left(\frac{15}{11} \text{ of } 412\right)^2 (5) \left(\frac{17}{13} \text{ of } 3444\right)^2$$
 319. The cost of 8 dozen of eggs is Rs 256. Which calculation is needed to find the cost of 9 eggs? (1) $(9 \times 256) \times (8 \times 12)$ (2) $(12 \times 256) + (8 \times 9)$ (3) $(8 \times 256) + (9 \times 12)$ (3) $(9 \times 256) + (8 \times 12)$ (3) $(9 \times 256) + (9 \times 12)$ (4) $(9 \times 256) \times (8 \times 12)$ (2) 43 (3) 89 (4) 78 (5) 55 Directions (C. 321-325) : What value should come in place of question mark (?) in the following questions? (2) 5 (3) 7.5 (4) 10 (5) 12.5 (2) 5 (2) 5 (3) 7.5 (4) 10 (5) 12.5 (2) 6.25 (3) 7.5 (4) 10 (5) 12.5 (2) 6.25 (3) 7.5 (4) 10 (5) 12.5 (2) 6.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 7.25 (4) 8.25 (5) 9.25 (3) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (3) 9.25 (4) 9.25 (5) 9.25 (4) 9.25 (5) 9.25 (4) 9.25 (5) 9.25 (4) 9.25 (5) 9.25 (6

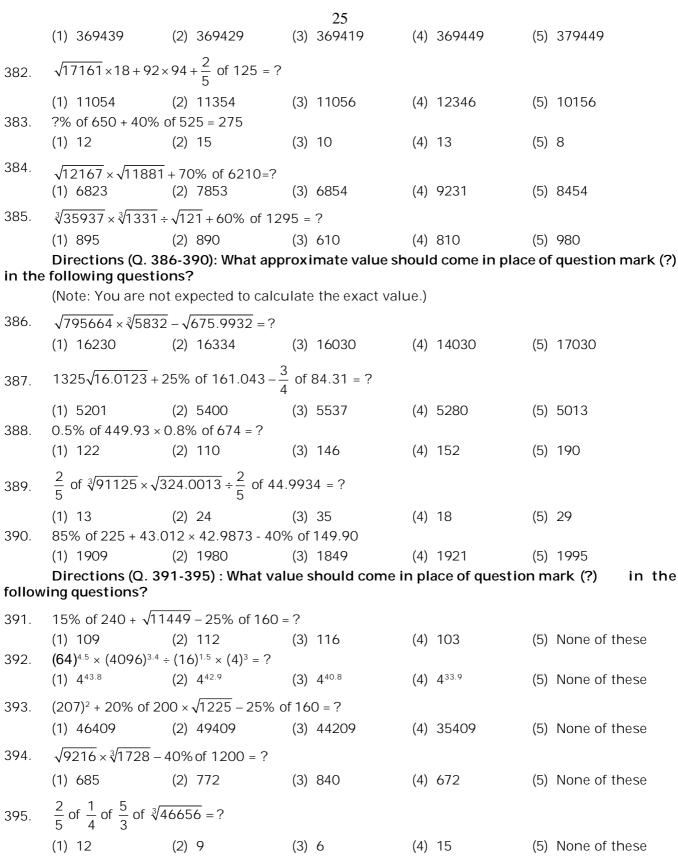
 $\frac{26096}{9790} \div \frac{7410}{1640} \times \frac{4656}{392.05} = \sqrt{?}$

349.





 $(609)^2 + 25\%$ of 200- $\frac{3}{4}$ of 1976 = ?



Directions (Q. 396-400): What approximate value should come in place of question mark (?) in the following questions?

396.
$$33\frac{1}{3}\% \text{ of } \sqrt[5]{1728} + 12.5\% \text{ of } 161.005 \times 40\% \text{ of } 1099.97=7$$

(1) 9204 (2) 9924 (3) 8503 (4) 8804 (5) 8954

397. $[(941192)^2 - (110592)^2]^2 = 7$

(1) 2600 (2) 2793 (3) 2973 (4) 2501 (5) None of these $85\% \text{ of } 225 + 32.98 \times 6.003 = 7$

(1) 469 (2) 349 (3) 389 (4) 421 (5) 399

399. $25\% \text{ of } \sqrt{4096.00139} \times \frac{2}{5} \text{ of } (35)^2 - \frac{2}{5} \text{ of } 39.01 = 7$

(1) 7213 (2) 7014 (3) 7814 (4) 7921 (5) 7521

400. $16\frac{1}{99} \times 5\frac{2}{105} \div 7 = 90\frac{98}{99}$

(1) 15 (2) 18 (3) 21 (4) 11 (5) 26 Directions (0. $401-405$): What should come in place of question mark (?) in the following questions?

401. $5003 \times 99 - 194661 = 7 \times 126$

(1) 2377 (2) 2386 (3) 2486 (4) 2586 (5) 2468

402. $\left[(6\sqrt{11} + \sqrt{11}) \times (7\sqrt{11} + 9\sqrt{11}) \right] - (29)^2 = 7$

(1) 402 (2) $110\sqrt{11}$ (3) $112\sqrt{11}$ (4) 391 (5) 389

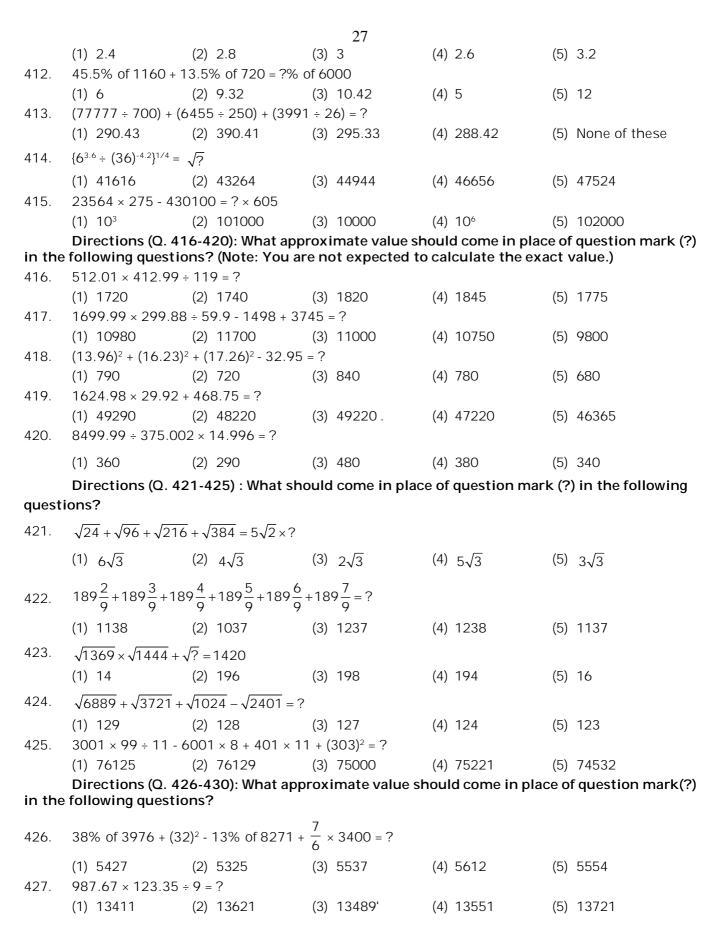
403. $8\frac{9}{4} \times 9\frac{13}{156} \times 7\frac{7}{11} + 2\frac{4}{9} - 6\frac{5}{5} = 7$

(1) 488.4 (2) 420 (3) 223.6 (4) 413.6 (5) 229.65

404. $\sqrt{35721} \times \sqrt{4624} - (86)^2 = 543 + (?)^3$

(1) 86 (2) 97.75% of $229 - 75\%$ of $229 - 75\%$ of $129 - 75\%$ of 12

 $(16)^{7.2} \div (4096)^{1.6} \times (65536)^{-1.2} \div (1048576)^{-1} = (16)^{?}$



428.
$$\sqrt{80} \times \frac{35}{6} \times (21)^2 + 343 = ?$$
(1) 21125 (2) 22981 (3) 20781 (4) 23159 (5) 21230

429. $4 \times (\sqrt{3} + \sqrt{4})^2 + 6(\sqrt{5} + \sqrt{6})^2 - 3(\sqrt{2} + \sqrt{3})^2 = ?$
(1) 167 (2) 123 (3) 157 (4) 153 (5) 149

430. $\frac{331}{30} + \frac{661}{60} + \frac{704}{11} - 35.013 + 36.026 = ?$
(1) 69 (2) 67 (3) 83 (4) 89 (5) 85

Directions (0. 431-435): What should come in place of question mark (?) in the following questions?

431. $[(3024 + 189)^{\frac{1}{2}} + (684 + 19)^2] = (?)^2 + 459$
(1) -27 (2) 29 (3) 841 (4) 1089 (5) 927

432. $(0.0729 + 0.1)^3 + (0.081 \times 10)^5 \times (0.3 \times 3)^5 = (0.9)^{2+3}$
(1) 2 (2) 0.5 (3) 1 (4) 3.9 (5) 4

433. $(204 \times 111) + (222 \times 101) + (33 \times 11) + \sqrt{4225} - \sqrt{3721} = ?$
(1) 43139 (2) 42232 (3) 39201 (4) 44707 (5) 40501

434. $9937 + 19 \times 12029 + 23 + 54 = ?$
(1) 26179 (2) 275893 (3) 331257 (4) 28532 (5) 31241

435. $1739 + 47 + 2679 + 57 + 3819 + 67 + 5159 + 77 + 6699 + 87 + 1245 + 83 = ?$
(1) 315 (2) 300 (3) 285 (4) 250 (5) 245
Directions (0. 436-440): What approximate value should come in place of question mark (?) in the following questions?

437. $\sqrt{8835} + \frac{(21952)^{\frac{3}{2}}}{7} = \sqrt{6240} - ?$
(1) $46\sqrt{5}$ (2) $15\sqrt{3}$ (3) 48 (4) $27\sqrt{5}$ (5) $23\sqrt{3}$

438. $[\sqrt{5041} - \sqrt{4489}]^{\frac{3}{2}} \times 0.03 + 37 = ?$
(1) 36 (2) 30 (3) 28 (4) 25 (5) 34

439. $23\frac{11}{25} + 47\frac{22}{45} - 17\frac{2}{5} - 0.03 + 25.729 = ?$
(1) 85 (2) 84 (3) 75 (4) 76 (5) 80

Directions (Q. 441-445): What will come in place of question mark(?) in the following questions?

(3) 17

441.
$$[(7164 \div 199)^{\frac{1}{2}} + (972 \div 27)^{2}] = (?)^{2} + 518$$

(1) -27 (2) 28 (3) 29 (4) 31 (5) 784

(2) 23

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(4) 19

442. 6.4 times
$$\frac{3}{5}$$
 of 70% of 780 = ?

(1) 209.664 (2) 2096.64 (3) 2396.64 (4) 2200 (5) 96

443. (0.0841 + 0.01)³ + (2.9)² = (2.9)² - 6
(1) 3 (2) 5 (3) 8 (4) 10 (5) 2

444. ($\sqrt{?\%}$ of $\sqrt{1849} \times 201 + 22.7 = 2602.7$
(1) 90 (2) 2580 (3) 900 (4) 86 (5) 80

445. (39)² × 3 + 13 + (9)² + 81 = (?)² - 170
(1) 1331 (2) 1161 (3) 110 (4) 13.31 (5) 11

Directions (0. 446-450): What should come in place of question mark(?) in the following questions?

446. $\sqrt{13^2 + 725 + 25 + 27 + 259} = ?$
(1) 27 (2) 22 (3) 36 (4) $\sqrt{22}$ (5) 18

447. $\sqrt{65,61} + 0.9 \times 81 = (?)² \times 3$
(1) 3 (2) 9 (3) 27 (4) 4 (5) 5

448. $15\frac{2}{33} - 14\frac{16}{16} + 18\frac{19}{231} = ?$
(1) $19\frac{409}{462}$ (2) $18\frac{53}{409}$ (3) $17\frac{409}{462}$ (4) $18\frac{409}{462}$ (5) $18\frac{409}{231}$

449. 69% of $730 + 409.3 + 25\%$ of $? = 1923$
(1) 1010 (2) 4020 (3) 4040 (4) 1040 (5) 2040

450. $(1.44)^4 + (1728 + 1000)^3 \times (0.12 \times 10)^3 = (1.2)^{32} = (1.2)^{32}$
(1) 6 (2) 2 (3) 3 (4) 7 (5) 4

Directions (0. 451 + 455): What approximate value will come in place of question mark(?) in the following question? (You are not expected to calculate the exact value).

451. 78% of $810 + 26\%$ of $735 - 619.29 = ?$
(1) 104 (2) 240 (3) 204 (4) 230 (5) 194

452. $(692.478)^2 + (305.2)^2 + (367.654)^2 = ?$
(1) 143646 (2) 436465 (3) 463465 (4) 363465 (5) 435465

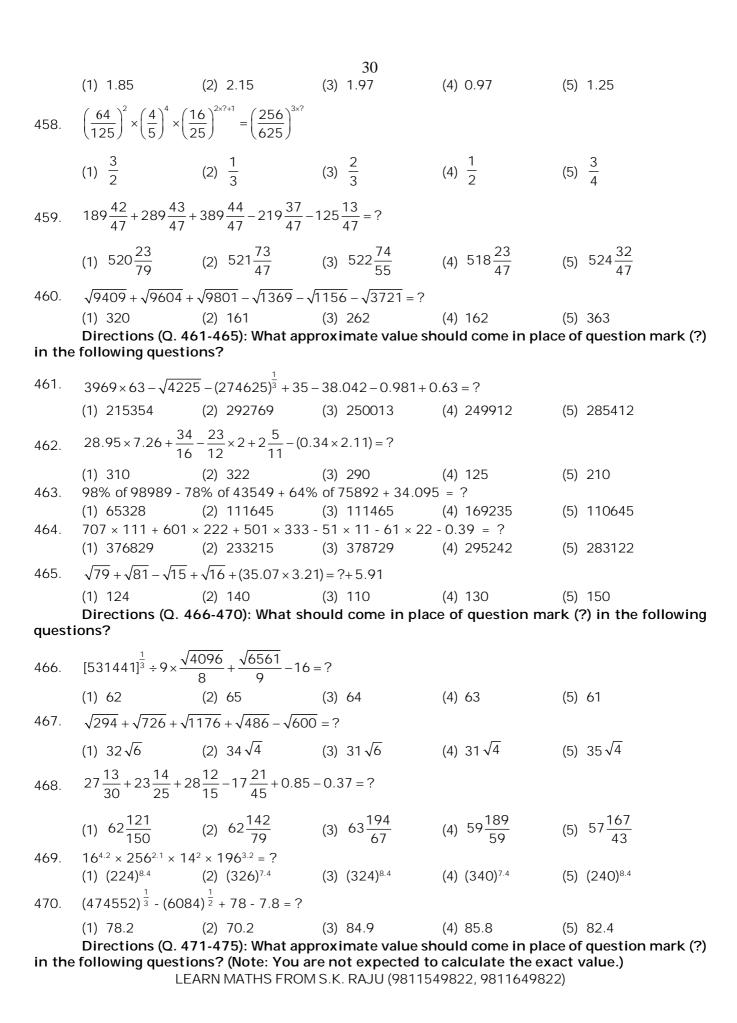
453. $\sqrt[3]{6859} + 0.189 + 23\%$ of $4200 + ?\%$ of $520 = 1555.66$
(1) 94 (2) 98 (3) 100 (4) 84 (5) 90

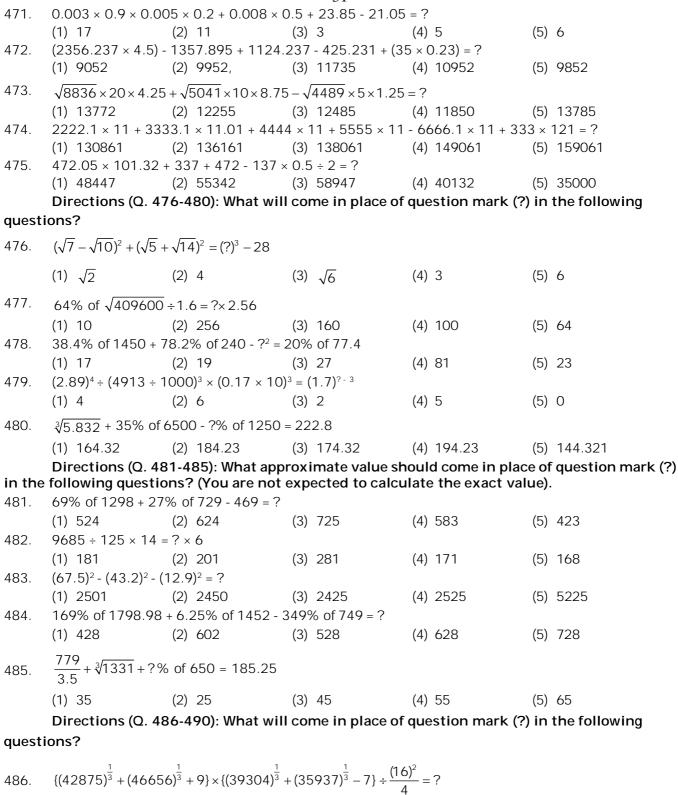
454. $6780 + 240 \times 35 = 7 \times 3.75$
(1) 285 (2) 295 (3) 275 (4) 265 (5) 365

Directions (Q. 456-460): What should come in place of question mark (?) in the following questions?

456.
$$(28-10\sqrt{3})^{\frac{1}{2}} + (7+4\sqrt{3})^{\frac{1}{2}} = ?$$
(1) 4 (2) 7 (3) 3 (4) 4.3 (5) 5

457.
$$? = \frac{(0.99)^3 + (0.98)^3}{0.99 \times 0.99 - 0.99 \times 0.98 + 0.98 \times 0.98}$$





(2) 78

(3) 70

(4) 75

(5) 72

in the following questions? (Note: You are not expected to calculate the exact value.)

(3) 48

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(4) 50

(5) 52

501.

 $\sqrt[3]{110590} = ?$

(2) 46

(1) 44

Directions (Q. 521-525): What approximate value should come in place of question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

- 521. $79352 \div 123 \times 35 + \sqrt{78} = ?$
 - (1) 23187
- (2) 24263
- (3) 27772
- (4) 22587
- (5) 26198

- 522. $(70.4969)^{\frac{1}{3}} \times \sqrt{4489} + (3502 \div 17) - \sqrt{2704} = ?$
 - (1) 750
- (2) 720
- (3) 650
- (4) 841
- (5) 690

- $\frac{13}{17}$ of 5352.541 $\frac{7}{13}$ of 970.524 + $\frac{12}{23}$ of 11570.97 = ? 523.
 - (1) 9951

525.

- (2) 9804
- (3) 9608
- (4) 9285
- (5) 6373

- 72% of 79540 69% of 5423 + 29% of 720 = ? 524.
 - (1) 51714
- (2) 52465

(1) 617480 (2) 656976 (3) 633476

- (3) 57487 $4297.52 + 1352.71 \times 464.52 + 7389 \div 221.5 = ?$
- (4) 59455

(4) 617880

(5) 53735 (5) 624576

SHORT ANSWER

-	(-)	0	(2)	2	(0)		<i>(</i> 1)	_	(E)		(2)	-	(0)	0	(0)
1.	(5)	2.	(3)	3.	(2)	4.	(1)	5.	(5)	6.	(3)	7.	(2)	8.	(?)
9.	(1)	10.	(4)	11.	(2)	12.	(5)	13.	(3)	14.	(1)	15.	(5)	16.	(3)
17.	(4)	18.	(2)	19.	(1)	20.	(2)	21.	(3)	22.	(3)	23.	(5)	24.	(1)
25.	(2)	26.	(1)	27.	(3)	28.	(4)	29.	(4)	30.	(5)	31.	(3)	32.	(2)
33.	(1)	34.	(3)	35.	(5)	36.	(3)	37.	(1)	38.	(4)	39.	(2)	40.	(3)
41.	(3)	42.	(1)	43.	(4)	44.	(2)	45.	(1)	46.	(4)	47.	(2)	48.	(3)
49.	(1)	50.	(3)	51.	(2)	52.	(3)	53.	(3)	54.	(4)	55.	(3)	56.	(4)
57.	(3)	58.	(1)	59.	(3)	60.	(5)	61.	(2)	62.	(4)	63.	(5)	64.	(1)
65.	(3)	66.	(2)	67.	(1)	68.	(3)	69.	(4)	70.	(2)	71.	(2)	72.	(4)
73.	(1)	74.	(5)	75.	(1)	76.	(3)	77.	(1)	78.	(3)	79.	(2)	80.	(5)
81.	(1)	82.	(3)	83.	(2)	84.	(2)	85.	(4)	86.	(2)	87.	(1)	88.	(3)
89.	(3)	90.	(4)	91.	(2)	92.	(3)	93.	(1)	94.	(2)	95.	(2)	96.	(4)
97.	(4)	98.	(2)	99.	(2)	100.	(5)	101.	(1)	102.	(2)	103.	(3)	104.	(3)
105.	(3)	106.	(3)	107.	(5)	108.	(1)	109.	(4)	110.	(2)	111.	(3)	112.	(4)
113.	(4)	114.	(2)	115.	(3)	116.	(1)	117.	(5)	118.	(4)	119.	(1)	120.	(1)
121.	(4)	122.	(3)	123.	(4)	124.	(2)	125.	(3)	126.	(2)	127.	(3)	128.	(4)
129.	(5)	130.	(3)	131.	(2)	132.	(1)	133.	(2)	134.	(3)	135.	(4)	136.	(3)
137.	(2)	138.	(1)	139.	(2)	140.	(2)	141.	(2)	142.	(1)	143.	(5)	144.	(4)
145.	(3)	146.	(2)	147.	(4)	148.	(5)	149.	(2)	150.	(3)	151.	(2)	152.	(4)
153.	(4)	154.	(2)	155.	(3)	156.	(1)	157.	(5)	158.	(2)	159.	(5)	160.	(2)
161.	(2)	162.	(1)	163.	(3)	164.	(2)	165.	(3)	166.	(4)	167.	(3)	168.	(1)
169.	(1)	170.	(1)	171.	(2)	172.	(2)	173.	(3)	174.	(5)	175.	(5)	176.	(4)
177.	(5)	178.	(4)	179.	(4)	180.	(3)	181.	(3)	182.	(2)	183.	(4)	184.	(2)
185.	(3)	186.	(3)	187.	(2)	188.	(3)	189.	(3)	190.	(4)	191.	(3)	192.	(4)
193.	(1)	194.	(1)	195.	(2)	196.	(3)	197.	(2)	198.	(2)	199.	(3)	200.	(5)
201.	(4)	202.	(3)	203.	(1)	204.	(1)	205.	(1)	206.	(5)	207.	(2)	208.	(3)
209.	(5)	210.	(3)	211.	(4)	212.	(1)	213.	(2)	214.	(5)	215.	(2)	216.	(3)
217.	(2)	218.	(3)	219.	(5)	220.	(1)	221.	(3)	222.	(5)	223.	(2)	224.	(4)
225.	(1)	226.	(5)	227.	(3)	228.	(1)	229.	(5)	230.	(2)	231.	(5)	232.	(3)
233.	(3)	234.	(5)	235.	(2)	236.	(5)	237.	(3)	238.	(2)	239.	(5)	240.	(4)
241.	(2)	242.	(3)	243.	(1)	244.	(5)	245.	(3)	246.	(2)	247.	(3)	248.	(1)
249.	(2)	250.	(4)	251.	(5)	252.	(2)	253.	(4)	254.	(3)	255.	(2)	256.	(2)
257.	(5)	258.	(2)	259.	(4)	260.	(3)	261.	(2)	262.	(4)	263.	(3)	264.	(2)
265.	(2)	266.	(4)	267.	(3)	268.	(2)	269.	(3)	270.	(3)	271.	(5)	272.	(1)
273.	(1)	274.	(4)	275.	(3)	276.	(4)	277.	(2)	278.	(2)	279.	(5)	280.	(3)
281.	(3)	282.	(5)	283.	(1)	284.	(2)	285.	(4)	286.	(3)	287.	(2)	288.	(1)
289.	(3)	290.	(4)	291.	(3)	292.	(4)	293.	(2)	294.	(2)	295.	(1)	296.	(2)
297.	(3)	298.	(4)	299.		300.	(3)		(3)	302.	(5)	303.		304.	(1)
305.	(2)	306.	(2)	307.	(3)	308.	(3)	309.	(1)	310.	(3)	311.	(3)	312.	(1)
313.	(4)	314.	(2)	315.	(5)	316. 324.	(5) (E)	317. 325.	(5)	318. 326.	(2)	319.	(5)	320. 328.	(5) (4)
321. 329.	(3) (1)	322. 330.	(2)	323. 331.	(2)	332.	(5) (2)	333.	(<u>4</u>)	334.	(3)	327. 335.	(2)	326. 336.	(<u>4</u>)
337.	(2)	338.	(3)	331.	(2) (5)	340.	(2)	333. 341.	(4)	334. 342.	(3) (2)	343.	(2) (2)	344.	(<u>4</u>)
345.		346.	(3) (2)	347.	(5) (1)	348.	(1)	341.	(3)	350.		351.		352.	(4) (5)
353.	(3) (4)	354.	(3)	355.	(2)	3 4 6.	(2)	349.	(4)	358.	(3)	351.	(3)	360.	(5)
361.	(2)	362.	(3)	363.	(1)	364.	(1)	365.	(3)	366.	(2)	367.		368.	(2)
369.	(2)	370.	(1)	371.	(2)	372.	(1) (3)	373.	(4) (4)	374.	(1) (5)	375.	(5) (1)	376.	(3) (2)
377.	(<u>4</u>)	378.	(2)	371.	(4)	380.		381.		382.		383.		384.	
385.	(4) (4)	386.	(3)	379.	(4)	388.	(4) (1)	389.	(4) (4)	390.	(3) (2)	391.	(3) (4)	392.	(3) (4)
393.	(3)	394.	(4)	395.	(3)	396.	(<u>4</u>)	309. 397.	(4)	398.	(2)	391.	(3)	400.	(4)
401.	(2)	402.	(4)	403.	(5)	404.	(3)	405.	(2)	406.	(3)	407.	(3)	400.	(1)
409.	(<u>z</u>) (<u>5</u>)	410.	(4)	411.		412.	(3)	413.	(1)	414.	(4)	415.		416.	(5)
100.	J	110.	(I)	411	(1)	TI .	(2)	TT).	(1)	III.	(1)	±10.	(3)	110.	J

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417.	(4)	418.	(2)	419.	(3)	420.	(5)	421.	(2)	422.	(5)	423.	(2)	424.	(3)
425.	(4)	426.	(1)	427.	(3)	428.	(2)	429.	(3)	430.	(5)	431.	(2)	432.	(3)
433.	(4)	434.	(2)	435.	(2)	436.	(1)	437.	(3)	438.	(2)	439.	(5)	440.	(3)
441.	(2)	442.	(2)	443.	(4)	444.	(3)	445.	(5)	446.	(2)	447.	(2)	448.	(4)
449.	(3)	450.	(5)	451.	(3)	452.	(2)	453.	(1)	454.	(4)	455.	(5)	456.	(2)
457.	(3)	458.	(1)	459.	(5)	460.	(4)	461.	(4)	462.	(5)	463.	(2)	464.	(1)
465.	(1)	466.	(2)	467.	(3)	468.	(1)	469.	(1)	470.	(2)	471.	(3)	472.	(2)
473.	(5)	474.	(3)	475.	(1)	476.	(2)	477.	(4)	478.	(3)	479.	(4)	480.	(1)
481.	(2)	482.	(1)	483.	(3)	485.	(2)	486.	(4)	487.	(3)	488.	(5)	789.	(2)
490.	(1)	491.	(4)	492.	(2)	493.	(2)	494.	(5)	495.	(4)	496.	(4)	497.	(2)
498.	(4)	499.	(3)	500.	(2)	501.	(5)	502.	(2)	503.	(1)	504.	(5)	505.	(2)
506.	(1)	507.	(5)	508.	(3)	509.	(4)	510.	(5)	511.	(4)	512.	(2)	513.	(5)
514.	(2)	515.	(5)	516.	(2)	517.	(3)	518.	(4)	519.	(4)	520.	(5)	521.	(4)
522.	(1)	523.	(3)	524.	(5)	525.	(3)								

DETAIL - EXPLANATIONS

1. 5;
$$? = \frac{135 \times 342}{100} - \frac{342 \times 13.5}{100}$$

= 461.7 - 46.17 = 415.53

2. 3;
$$\sqrt{13.3225} = 3.65$$

3. 2;
$$\frac{?\times 12800}{100}$$
 = 1008 + 2448 = 3456

$$\therefore ? = \frac{3456}{128} = 27$$

4. 1;
$$(?)^2 = 1859 \times 275 = 169 \times 11 \times 25 \times 11$$

 $(?)^2 = 25 \times 121 \times 169$
 $\therefore ? = 5 \times 11 \times 13 = 715$

5. 5;
$$? = \frac{36 \times 17 \times 18 \times 25215}{123 \times 41 \times 100} = 550.8$$

6. 3;
$$? = \frac{185 \times 1360}{100} + \frac{18.5 \times 1320}{100}$$

= 2516 + 244.2 = 2760.2 - 2760

7. 2;
$$? = \frac{\sqrt{5475}}{5} = \frac{74}{5} = 14.8 \approx 15$$

= 1593 + 1334.5 = 2927.5 \approx 2930

9. 1;
$$? \approx 43 \times 28 + 12 \times 35$$

= 1204 + 420 = 1624 \approx 1625

10. 4;
$$? = \{(8.66)^2 \times 13.98\} \div \sqrt{50}$$

= $\{74.99 \times 13.98\} \div 7.07$

$$\therefore ? = \frac{75 \times 14}{7} = 150$$

11. 2;
$$? = \frac{13 \times 15 \times 0.45 \times 7168}{8 \times 32 \times 100} = 24.57$$

12. 5; ? =
$$(1036 \times 0.75 + 1128 \times 0.25) \times 3.5$$

= $(777 + 282) \times 3.5 = 1059 \times 3.5 = 3706.5$

13. 3;
$$\sqrt{?} = \frac{78 \times 148}{481} = 24$$

 $\therefore ? = (24)^2 = 576$

14. 1;
$$? = \left(\frac{5546}{47} + \frac{4984}{4}\right) \div 11$$

? =
$$(118 + 1246) \div 11 = \frac{1364}{11} = 124$$

15. 5;
$$? = \frac{32}{5} \times \frac{45}{8} \times \frac{165}{14} \times \frac{7}{144}$$
$$= \frac{135}{2} = 67.5$$

16 3;
$$? = \frac{340 \times 800}{100} + \frac{78 \times 1100}{100}$$

= 2720 + 858 = 3578 \approx 3580

17. 4;
$$? = \sqrt{2300} \times \sqrt{240} \approx 48 \times 15.5$$

= 744 = 745

18. 2;
$$? \approx 14 \times 27.5 - 8.75 \times 16$$

= 385 - 140 = 245 \approx 250

19. 1; ?
$$\approx 119 \times 15 + 21 \times 14$$

= 1785 + 294 = 2079 ≈ 2080

20 2;
$$? = \frac{17.4 \times 1550}{100} - 21 \times 9$$

= 269.7 - 189 = 80.7 \approx 80

21. 3;
$$650 \times \frac{24}{23} \times \frac{92}{100} \times \frac{1}{6} = 85 + ?$$

or, ? = 104 - 85 = 19

22. 3;
$$92 \times 576 \div (2\sqrt{1296})$$

= $(?)^3 + \sqrt{49}$
or, $\frac{92 \times 576}{72} = ?^3 + 7$ or, $736 - 7 = ?^3$
 $? = \sqrt[3]{729} = 9$

23. 5;
$$(3+2-1-1)+\left(\frac{1}{4}+\frac{1}{2}-\frac{5}{6}-\frac{5}{12}\right)$$

$$=\frac{(?)^2}{10} \Rightarrow 3+\left(\frac{3+6-10-5}{12}\right)=\frac{?^2}{10}$$

$$\Rightarrow 3+\frac{6}{12}=\frac{?^2}{10} \Rightarrow 3-\frac{1}{2}=\frac{?^2}{10}$$

or
$$?^2 = \frac{5}{2} \times 10 = 25$$
 ? = 5

25. 2 26. 1

29. 4 30. 5

32. 2;
$$\frac{? \times 999}{100} = 166.5 \times 0.9$$

$$\therefore ? = \frac{14985}{999} = 15$$

33. 1; ? = {(157.8 + 117.2) (157.8 - 117.2)}
$$\times$$
 0.008
? = (275 \times 40.6) \times 0.008 = 11165 \times 0.008
= 89.32

34. 3;
$$? = \frac{82992}{76 \times 42} = 26$$

35. 5;
$$? = \left[\left\{ \frac{486 \times 486}{27 \times 27} \right\} \times 15 \right] \div 12$$

$$? = \frac{324 \times 15}{12} = 405$$

36. 3;
$$? = \left(\frac{2875 \times 124}{100}\right) \div 5 = \frac{3565}{5}$$

37. 1;
$$? \approx \frac{197}{8} + \sqrt{24000} \approx 25 + 155 = 180$$

38. 4;
$$? = \frac{135 \times 128}{100} + \frac{115 \times 24}{100}$$

= 172.8 + 27.6 = 200.4 = 20

39. 2; ? =
$$\frac{(83.98)^2}{13.49} = \frac{(84)^2}{13.5} = 522.66 \approx 525$$

40. 3;
$$? = \left(\frac{2900}{35} - 13\right) \times 6$$

= (83 - 13) × 6 = 70 × 6 = 420

41. 3;
$$(13^3)^{-2} \div (13^4)^{-3}$$

= $(13)^{-6} \div (13)^{-12}$
= $(13)^{-6+12} = (13)^6 = 169 \times (13)^4$
 $\therefore ? = 4$

42. 1;
$$? = \frac{7 \times 5 \times 48 \times 28980}{12 \times 21 \times 23 \times 100} = 84$$

43. 4; ? =
$$\left(\frac{14641}{11}\right) \times 3.5 = 1331 \times 3.5 = 4658.5$$

44. 2;
$$(28)^{4.9} \times (7)^{0.1} \times (4)^{0.1} \div (7^{-2.5} \times 4^{-2.5})$$

 $(28)^{4.9} \times (28)^{0.1} \div (28)^{-2.5} = (28)^{4.5+0.1+2.5}$
 $\therefore ? = 7.5$

45. 1;
$$6 \times ? = \left(\frac{28.5 \times 144}{100}\right) \times 25$$

= 41.04 × 25 = 1026
 $\therefore ? = \frac{1026}{6} = 171$

46. 4;
$$? \approx \frac{145 \times 1340}{100} + 42 \times 18.5 = 1943 + 777$$

= 2720

47. 2; ?
$$\approx \frac{3740}{21} \times 4.5 = 178 \times 4.5 = 801 \approx 800$$

48. 3; ?
$$\approx \left(\frac{2260}{39} \times \sqrt{2020}\right) \times 1.25 \approx (57.948 \times 44.94) \times$$

$$1.25 = (58 \times 45) \times 1.25 = 3262.5 \approx 3260$$

49. 1; ?
$$\approx \frac{185 \times 750}{100} - \frac{115 \times 840}{100}$$

$$= 1387.5 - 966 = 421.5 \approx 420$$

50. 3;
$$? \approx 156 - 12 \times 3 = 156 - 36 = 120$$

51. 2;
$$(8)^{7.2} \div (8^3)^{1.6} \times (8^4)^{-1.2} \div (8^5)^{-1}$$

= $(8)^{7.2} \div 8^{4.8} \times 8^{-4.8} \div 8^{-5}$
= $(8)^{7.2 \cdot 4.8 \cdot 4.8 \cdot 5} = (8)^{2.6}$ \therefore ? = 2.6

52. 3;
$$\frac{3000 \times ?}{100} = 45.5 \times 9.6 + 13.5 \times 3.2$$
$$= 436.8 + 43.2 = 480$$
$$\therefore ? = \frac{480 \times 100}{3000} = 16$$

53. 3; ? =
$$\{(24^3)^{2/3} \div 16\} \times 7.5$$

= $\{(24)^2 \div 16\} \times 7.5 = 36 \times 7.5 = 270$

54. 4;
$$\sqrt{?} = \{6^{3.6} \div (6^2)^{-4.2}\}^{1/4}$$

= $\{6^{3.6} \div 6^{-8.4}\}^{1/4} = (6^{3.6} + 8.4)^{1/4}$
 $\therefore \sqrt{?} = \{6^{12}\}^{1/4} = 6^3 = 216$
or $? = (216)^2 = 46656$

55. 3;
$$? = \sqrt[3]{12167} \times \sqrt{24025}$$

= 23 × 155 = 3565
56. 4: $? \approx (140 \times 24) - (28 \times 7)$

56. 4;
$$? \approx (140 \times 24) - (28 \times 7.5)$$

= 3360 - 210 = 3150

57. 3;
$$? = \left(\frac{3248 \times 55}{100}\right) \div 28 = \frac{3248 \times 55}{2800}$$

$$58. 1; : (103)^2 = 10609$$

$$\therefore \sqrt{10600} = 103$$

$$\therefore (27)^3 = 19683$$

$$\therefore~?~\approx~103~\times~27~=~2781~\approx~2780$$

59. 3;
$$\therefore$$
 (58)² = 3364 \therefore $\sqrt{3360} \approx 58$
 \therefore ? = $\frac{6844}{58} + \frac{256}{8} = 118 + 32 = 150$

60. 5;
$$? = \left(\frac{248 \times 17855}{100}\right) \div 24 = \frac{44280.4}{24} = 1845$$

61. 2
$$? = \frac{1}{2} \left[\left(\frac{4950}{6} \right) + (112 \times 1.75) \right]$$

$$=\frac{1}{2}(825 + 196) = \frac{1021}{2} = 510.5$$

63. 5;
$$\frac{?\times 1068.5}{100} = 12132 - 3584$$

$$\therefore ? = \frac{8548 \times 100}{1000} = 800$$

 \therefore ? = $\frac{8548 \times 100}{1.00}$ = 800 LEARN MATHS FROM S.K. RAJU (9811549822, 9648649822)

64. 1;
$$75 \times ? = 64 + 116 = 180$$

$$\therefore ? = \frac{180}{75} = 2.4$$

65. 3;
$$\frac{30 \times ?}{100} = \frac{157 \times 360}{100} + \frac{66 \times 275}{100}$$
or, $30 \times ? = 56520 + 18150 = 74670$

$$\therefore ? = \frac{74670}{30} = 2789$$

66. 2;
$$\sqrt{?} = \frac{112}{48 \div 12} = \frac{112}{4} = 28$$

 $\therefore ? = (28)^2 = 784$

67. 1;
$$? = \sqrt{?} = \frac{4140}{36} + 55 \times (9)^2$$

= 115 + 4455 = 4570

68. 3;
$$\sqrt{?} \approx \frac{32.5 \times 1800}{100} + \frac{23 \times 1500}{100}$$

= 585 + 345 = 930

69. 4;
$$(22)^3 = 10648$$

70. 2;
$$(10)^{7.3} \div (10^2)^{4.15} \times (10^3)^2 + 99999$$

= $(10)^{7.3} \div (10)^{8.3} \times (10)^6 + 99999$
= $(10)^{7.3} \cdot {}^{83} \cdot {}^{6} + 99999$
= $(10)^5 + 99999 \approx (10)^5 + (10)^5$
= 2×10^5

71. 2;
$$(16)^{1/2} + (36)^2 = ?^2 + 459$$

or, $?^2 = 4 + 1296 - 459 = 841$
or, $? = \pm 29$

72. 4;
$$4.4 \times \frac{5}{16} \times \frac{30}{100} \times 216$$

= $4.4 \times \frac{5}{16} \times 64.8 = 89.1$

73. 1;
$$(0.729)^3 \div (0.81)^5 \times (0.9)^5 = (0.9)^{7+3}$$
 or, $[(0.9)^3]^3 \div [(0.9)^2]^5 \times (0.9)^5 = (0.9)^{7+3}$ or, $(0.9)^9 \div (0.9)^{10} \times (0.9)^5 = (0.9)^{7+3}$ or, $(0.9)^{9-10+5} = (0.9)^{7+3}$ or, $(0.9)^4 = (0.9)^{7+3}$ $\therefore ? = 1$

74. 5;
$$\left(\sqrt{\frac{?}{100}} \text{ of } 42 \times 5\right) = 37.8$$

or,
$$\left(\frac{\sqrt{?}}{10} \text{ of } 42 \times 5\right) = 37.8$$

or,
$$4.2\sqrt{?} \times 5 = 37.8$$

or,
$$21\sqrt{?} = 37.8$$

or,
$$\sqrt{?} = 1.8$$

or,
$$? = 3.24$$

75. 1;
$$(729 \times 6 \div 9) + 343 + 71 + 431 = ?^3$$

or, $486 + 343 + 71 + 431 = ?^3$

or,
$$?^3 = 1331 = (11)^3$$

 $\therefore ? = 11$

76. 3;
$$\sqrt{?} = \frac{321 \times 9}{0.8 \times 11.25} = 321$$

 $\therefore ? = (321)^2$
= 103041

78. 3;
$$\frac{12.5 \times ?}{100} = \frac{44 \times 475}{100} + \frac{72 \times 55}{100}$$
$$= 209 + 39.6 = 248.6$$
$$\therefore ? = \frac{24860}{12.5} = 1988.8$$

79. 2;
$$(7)^{\frac{1}{6}} \div (7)^{\frac{-3}{2}} \times (7)^{\frac{2}{3}} = (7)^{\frac{1}{6} + \frac{3}{2} + \frac{2}{3}} = (7)^{\frac{7}{3}}$$

$$= (\sqrt[3]{7})^{7}$$

$$\therefore ? = 7$$

80. 5;
$$? = \frac{69}{8} \times \frac{72}{23} + \frac{36}{5} \times \frac{38}{9}$$

= $27 + \frac{152}{5} = \frac{135 + 152}{5} = \frac{287}{5} = 57\frac{2}{5}$

81. 1;
$$? = \sqrt{172 + 152} = \sqrt{324} = 8$$

82. 3;
$$\frac{1320 \times ?}{100} = 4515 - \frac{48.5 \times 7840}{100}$$
$$= 4515 - 3800 = 715$$
$$\therefore ? = \frac{71500}{1320} = 54.16 \approx 54$$

83. 2; ?
$$\approx 118.25 \times 290 + 43.5 \times 170$$

= 34292.5 + 7395
= 41687.5 ≈ 41700

84. 2;
$$? \approx \sqrt[3]{226980} \approx 61$$

85. 4;
$$? \approx \frac{8847256}{4446}$$

= 1989.936 \approx 1990

86. 2;
$$?^2 = 252 \times 63$$

= $9 \times 7 \times 4 \times 7 \times 9$
= $(2 \times 7 \times 9)^2$
 $\therefore ? = 2 \times 7 \times 9 = 126$

87. 1; = 18 + 17 = 35

$$\therefore ? = (35)^2 = 1225$$

88. 3;
$$\sqrt{?}$$
 = 82 + 15 - 16 = 81
 \therefore ? = (81)² = 6561
89. 3; $(27)^{3/5} \times (3)^4 \div (3)^{-1/5}$

$$= (3)^{\frac{9}{5}+4+\frac{1}{5}} = (3)^{6} = (9)^{3}$$

$$\therefore ? = 3$$

$$90. \quad 4; \quad \frac{20 \times ?}{100} = \frac{7.85 \times 1240}{100} + \frac{3.6 \times 850}{100}$$

$$= 97.34 + 30.6 = 127.94$$

$$\therefore ? = \frac{12794}{20} = 639.7$$

$$91. \quad 2; \quad ? \approx \frac{840}{15} \times 18 = 1008 \approx 1000$$

$$92. \quad 3; \quad ? = 31 \times 42 = 1302 \approx 1300$$

$$93. \quad 1; \quad ? \approx \left\{\frac{55.5}{3} \times 12\right\} \times 5 = 185 \times 12 \times 5 = 11100$$

$$94. \quad 2; \quad ? \approx \frac{1870}{85} + 41 \times 17$$

95. 2;
$$? \approx \frac{80 \times 875}{100} + \frac{18 \times 255}{100}$$

96. 4;
$$? = \frac{47376}{47 \times 56} = 18$$

98. 2;
$$\frac{? \times 141}{100} = 24.8 - 2.28 = 22.56$$

$$\therefore ? = \frac{22.56 \times 100}{141} = 16$$

99. 2;
$$\left[\frac{7569}{29} \times 48\right] \div 18 = \frac{261 \times 48}{18} = 696$$

= 12 \times 58
\times 2 = 58

100. 5;
$$(0.2)^{3/2} \times (0.2)^3 \div (0.2)^{-1/2}$$

= $(0.2)^{\frac{3}{2} + 3 + \frac{1}{2}} = (0.2)^5$ \therefore ? = 5

101. 1;
$$? \approx 66 + \frac{1204}{7} \times 15 = 66 + 2580$$

= 2646 \approx 2650

102. 2;
$$? = \frac{217 \times 8458}{100} = 18353.80 \approx 18350$$

103. 3;
$$? \approx \frac{64400}{55} = 1170.9 \approx 1170$$

104. 3; ? =
$$45 + 14 \times 15 + 148 \div 4$$

= $45 + 210 + 37 = 292 \approx 290$

105. 3;
$$? = \frac{148 \times 1750}{100} - 15 \times 16$$

= 2590 - 240 = 2350

106. 3;
$$? = \frac{34.2 \times 17.4 \times 1.5}{2} = \frac{892.62}{2} = 446.31$$

107. 5;
$$(6^5)^{1.3} \times (6^2)^{1.25} \div (6^3)^2 \div (6^4)^{-1}$$

= $(6)^{6.5} \times (6)^{2.5} \div (6)^6 \div (6)^{-4}$
= $(6)^{6.5+2.5-6+4} = (6)^7$
 $\therefore ? = 7$

108. 1;
$$\sqrt{1.8225} \times \sqrt{70.56} - 1.35 \times 8.4 = 11.34$$

109. 4;
$$? = \frac{30 \times 5 \times 3 \times 16 \times 10920}{7 \times 13 \times 15 \times 100} = 576$$

110. 2;
$$? = \frac{26}{7} \times \frac{35}{3} \times \frac{42}{173} \times \frac{5}{13} \times \frac{2595}{10} = 1050$$

111. 3;
$$? \approx 48 \times 5 = 240$$

112. 4;
$$? = \frac{137 \times 1285}{100} = 1760.45 \approx 1760$$

113. 4; :
$$(48)^2 = 2304$$
 : $\sqrt{2300} \approx 48$

$$114. \ \ 2; \ \ ? \approx \frac{3 \times 800}{100} + \frac{6 \times 1100}{100} = 24 + 66 = 90$$

115. 3; ?
$$\approx$$
 13 × 103 + 198 × 12
= 1339 + 2376 = 3715 \approx 3700

116. 1;
$$? = \frac{(23.65 + 48.35)(23.65 - 48.35)}{0.9}$$

or,
$$? = \frac{72 \times -24.7}{0.9} = -1976$$

117. 5;
$$\frac{?}{100} \times 5525 = \frac{76 \times 960}{100} - \frac{45 \times 148}{100}$$

= 729.6 - 66.6 = 663

$$\therefore ? = \frac{663 \times 100}{5525} = 12$$

118. 4;
$$(4^6)^{3.6} \div (4^4)^{4.3} \times (4^3)^5 \div (4^2)^{-4}$$

= $(4)^{22.2} \div (4)^{17.2} \times (4)^{15} \div (4)^{-8}$
= $(4)^{22.2 \cdot 17.2 + 15 + 8} = (4)^{28}$

121. 4; ?
$$\approx$$
 (85 ÷ 17) \times 14 = 5 \times 14 = 70

122. 3;
$$? \approx (13.8 \times 45) + 170$$

= 620 + 170 = 790

123. 4;
$$? = \sqrt[3]{54870} \approx 38$$

124. 2;
$$? = \frac{1.35 \times 5720}{100} + \frac{12.8 \times 45}{100}$$

= 77.22 + 5.76 = 82.98 \approx 83

125. 3;
$$? \approx \frac{1680}{13} + \sqrt{2020}$$

? $\approx 130 + 45 = 175$

128. 4;
$$\left[\sqrt[3]{2(12)^4} \right]^{\frac{3}{2}} = \left[\sqrt[3]{(12)^2} \right]^{\frac{3}{2}} = \left[(12)^2 \right]^{\frac{3}{2} \times \frac{1}{3}}$$
$$= 12$$

129. 5;
$$\frac{?}{100} \times 664 = 332 \times 0.8 = 265.6$$

$$\therefore ? = \frac{265.6 \times 100}{664} = 40$$

130. 3;
$$(?)^2 = \frac{18.5 \times 7200}{100} + \frac{27.8 \times 1800}{100} + 16.6$$

= 1332 + 500.4 + 16.6 = 1849 = (43)²

131. 2;
$$? = \frac{172 \times 1155}{100} + \frac{2.75 \times 275}{100}$$

= 1986.6 + 7.5625
= 1994.1625 \approx 1994

132. 1; ?
$$\approx$$
 7130 × 20 + 13 × 1920
= 142600 + 24960 = 167560

133. 2; ?
$$\approx$$
 18940 + 45 + 2.4 × 75 \approx 420 +180 = 600

134. 3;
$$\because$$
 (38)³ = 54872
∴ $\sqrt{54870} \approx 38$

135. 4;
$$\sqrt{2300} \approx 48$$

∴? = $48 \times \frac{11}{6} = 88$

136. 3;
$$0.25 \times ? = 693 + 1060 = 1753$$

$$\therefore ? = \frac{1753}{0.25} = 7012$$

137. 2;
$$? = \frac{4590 \times 7 \times 8 \times 4}{17 \times 3 \times 5} = 4032$$

138. 1;
$$? = \left[\frac{(342)^3}{(57)^2} \right] \div 216 = \frac{36 \times 342}{216} = 57$$

139. 2;
$$0.06 \times ? = \frac{26.8 \times 480}{100} - \frac{13.4 \times 180}{100}$$

= 128.64 - 24.12
$$\therefore ? = \frac{104.52}{0.06} = 1742$$

$$\therefore$$
 (a + b) = $\frac{a^3 + b^3}{a^2 + b^2 - ab}$

141. 2; ? =
$$(380 \times 44) - (79 \times 84) + 373$$

= $16720 - 6636 + 373 = 10457$

142. 1;
$$? = \frac{2.4 \times 740}{100} \times \frac{1.8 \times 590}{100}$$

= 17.76 × 10.62 = 188.6112 = 190

143. 5; ? =
$$182 \times 18 + \frac{172 \times 785}{1000}$$

= $3276 + 1350.2 = 4626 \approx 4625$

144. 4;
$$? = 18 \times 155 + \frac{1245}{32}$$

145. 3;
$$? = 77 \times 14 + 18 \times 15$$

= $1078 + 270 = 1348 = 1350$

146. 2;
$$\sqrt{53.29} \div (30)^{-2} = 7.30 \times 900 = 6570$$

147. 4;
$$? = \frac{366.5 - (1335 \times .13)}{1135} \times 100$$
$$= \frac{192.95 \times 100}{1135} = 17$$

148. 5;
$$? = \frac{115260 \times 11 \times 7}{113 \times 85} = 924$$

149. 2;
$$105 \times ? = (304 \times 14) - 2786$$

= 4256 - 2786

$$\therefore ? = \frac{1470}{105} = 14$$

151. 2;
$$? = \frac{22 \times 164.4}{100} + \frac{14 \times 65}{100}$$

= 36 + 9 = 45

152. 4;
$$? = \frac{(1.3)^2 + (3)^2}{0.2}$$

$$=\frac{1.69+9}{0.2}=\frac{10.7}{0.2}=55$$

154. 2;
$$\sqrt{2020} \approx 45, \sqrt{320} \approx 18, \sqrt{1330} \approx 36.5$$

 $\therefore ? = 45 + 18 + 36.5 = 99.5 \approx 100$

155. 3;
$$\therefore$$
? = $\frac{104}{15} + \frac{35}{6} + \frac{9}{2}$

$$\approx 7 + 6 + 4.5 = 17.5$$

156. 1; ? = (80)⁻² × { (247.4 + 112.6)
(247.4 - 112.6)} = (80)⁻² × {360 × 134.84}

$$=\frac{48528}{6400}=7.5825$$

157. 5;
$$? = \left\{ \frac{11.8 \times 4450}{100} + \frac{22.5 \times 1680}{100} \right\} \times 40$$

$$\Rightarrow \{525.1\% + 378\} \times 40 = 903.1 \times 40 = 3612$$
158. 2; $\frac{?}{100} \times 5400 = \frac{7 \times 12 \times 7425}{15 \times 11 \times 5} = 756$

$$? = \frac{756 \times 100}{5400} = 14$$
159. 5; $(?)^2 = 735 \times 135 = (15 \times 7 \times 7) \times (15 \times 3 \times 3)$
or; $? = (15 \times 7 \times 3)^2$

$$\therefore ? = 15 \times 7 \times 3 = 315$$
160. 2

$$_{161. \ 2;} \ ? = \frac{336633}{872 \times 7} = 55.1495 \approx 55$$

162. 1;
$$? \approx \frac{442 + 788}{6} = \frac{1230}{6} = 205$$

163. 3; ?
$$\approx$$
 (113 \times 15) - (12 \times 9)
1695 - 108 = 1587 \approx 1590

164. 2;
$$? = \sqrt[3]{389000} \approx 73$$
 :: $(73)^3 = 389017$

165. 3;
$$?? = \frac{7640}{120} \times 35 = 63.6 \times 35 = 2226$$

$$_{166.4}$$
; $? = \frac{5652 \times 0.5}{24} = 117.75$

$$167.3$$
; $? = \frac{4808}{8 \times 5} = \frac{4808}{40} = 120.2$

168.1;
$$\frac{65}{100} \times 654 - \frac{?}{100} \times 860 = 210.1$$

or,
$$? = \frac{65 \times 654 - 21010}{860}$$

or,
$$? = \frac{42510 - 21010}{860}$$

$$\therefore ? = \frac{21500}{860} = 25$$

$$170.1$$
; $? = \frac{8}{13} \times \frac{559}{192} = \frac{43}{24} = 1\frac{19}{24}$

171.2;
$$? = 243 \times 124 - 25340$$

= 30132 - 25340 = 4792

$$172.2$$
; $? = \frac{92}{8 \times 2} = 5.75$

173.3;
$$(121)^3 \times 11 \div (1331)^2 = (11)^7$$

or
$$(11^2)^3 \times \frac{11}{(11^3)^2} = (11)^7$$

or,
$$\frac{11^6 \times 11}{11^6} = (11)^7$$

or
$$(11)^1 = (11)^2$$

176.4;
$$390.5 \times \sqrt{?} = 284 \times 22$$

or
$$\frac{284 \times 22}{390.5} = \sqrt{?}$$

or
$$\frac{62480}{3905} = \sqrt{?}$$

or
$$16 = \sqrt{?}$$

177.5;
$$? = 12.5 \times 8.4 \times 7.6 = 798$$

$$_{178.4}$$
; $? = \frac{4477}{44 \times 5.5} = \frac{4477}{242} = 18.5$

179.4;
$$? = \frac{33.5}{100} \times 250 = 33.5 \times 2.5 = 83.75$$

180.3;
$$? = \frac{1}{2} \times \frac{3}{5} \times \frac{4}{9} \times 5820 = \frac{69840}{90} = 776$$

181. 3;
$$\frac{? \times 139.125}{100} = \frac{24.5 \times 48}{100} + \frac{8.4 \times 125}{100}$$

= 11.76 + 10.5
 $\therefore ? = \frac{22.26 \times 100}{139.125} = 16$

182. 2;
$$\frac{24.84}{?} = 300 \times 0.2 \times 0.03 = 1.8$$

$$\therefore ? = \frac{24.84}{1.8} = 13.8$$

183. 4;
$$\frac{320 \times ?}{100} = \frac{8 \times 7 \times 12.5 \times 13728}{13 \times 3 \times 100} = 2464$$

$$\therefore ? = \frac{2464 \times 100}{320} = 770$$

184. 2;
$$(6^4)^{3.8} \times (6^3)^{-4} \div \frac{1}{(6)^5} = (36)^7$$

$$\Rightarrow (6)^{15.2} \times (6)^{-12} \div (6)^{-5} = (36)^{7}$$
$$= (36)^{7} = (6)^{15.2 + 12 + 5} = (6)^{8.2} = (36)^{4.1}$$

185. 3;
$$\sqrt[3]{?} = 78 \div 13 = 6$$

 $\therefore ? = (6)^3 = 216$

186. 3;
$$7 \approx \frac{27 + 58}{5} = \frac{85}{5} = 17$$

187. 2; $7 \approx 7824 + 48 + 3236 + 57$
= 163 + 56.77 = 219.77 \approx 220

188. 3; $7 \approx 228 \times 3.12 + 1.2 \times 4.16$
= 8.736 + 4.992 = 13.728 \approx 14

189. 3; $7 \approx 190 \times 3.25 + 4 \times 112$
= 617.5 + 448 = 1065.5 \approx 1065

190. 4; $7 \approx (324 \times 58.42) + 195$
= 18928 \div 195 = 97

191. 3; $(33^2)^{2.8} \div (33)^{3.4} \times (33)^{3.3} = (1089)^7$
or, $(33)^{5.6} \div (33)^{3.4} \times (33)^{3.3} = (1089)^7$
or, $(33)^{5.6} \div (33)^{3.4} \times (33)^{3.3} = (1089)^7$
or, $(1089)^3 = 1089^7$
or, $(1089)^3 = 1089^7$
or, $(1089)^3 = 1089^7$
or, $(1089)^3 = 1089^7$

$$\therefore 7 = 3$$

192. 4; $7 = \frac{1.4641}{0.0011} = \frac{14691}{11} = 1331$

193. 1; $7 \times 49.5 = \frac{3.6 \times 180}{100} + \frac{2.4 \times 555}{100} = 6.48 + 13.32 = 19.8$

$$\therefore 7 = \frac{19.8 \times 100}{9.3 \times 100} = 400$$

194. 1; $7 = \frac{7.25 \times 244 - 2.75 \times 148}{1.2} = \frac{1769 - 407}{1.2} = \frac{1362}{1.2} = 1135$

196. 3; $7 \approx 38 \times 35 = 1330$

197. 2; $7 \approx \left(\frac{445 \times 336}{6}\right) + 5 = 1495 \div 5 = 299 \approx 300$

198. 2; $7 \approx \frac{8754}{6} \times 5 = 1459 \times 5 = 7300$

199. 3; $7 = 1294 + 930 = 3224 = 3225$

200. 5; $7 = \frac{550}{10} \times 8.5 = 425$

201. 4; $7 = \frac{17}{5} \times \frac{61}{8} \div \frac{7}{3} \times \frac{7}{2} \times \frac{16}{5} = \frac{17 \times 61 \times 3 \times 16}{5 \times 8 \times 2 \times 5} = \frac{3111}{25} = 124.44$

202. 3; $7 = \frac{964.72}{77.8 \times 0.8} = 15.5$

203. 1; $7 = \frac{4.2 \times 3.75}{15 \times 27 \times 100 \times 2.1} = 29.5$

205. 1;
$$(7.1)^2 = \{(7.1)^3\}^{\frac{2}{3}} \times \{(7.1)^2\}^{\frac{3}{2}}$$
or, $(7.1)^2 = (7.1)^2 \times (7.1)^3$
or, $(7.1)^2 = (7.1)^5$
 $\therefore ? = 5$
206. 5; $? = 83 + 37 = 120$
207. 2; $? = (670 + 30 \times 35) \div 6 = 1720 \div 6$
 $= 286.66 \approx 290$
208. 3; $\therefore ? = \frac{45 \times 45}{7.5} = 270$
209. 5; $? = \frac{228 \times 450}{100} + \frac{84 \times 845}{100} - 1116$
 $= 1026 + 710 - 1116 = 1736 - 1116 = 620$
210. 3; $\therefore ? = \frac{15227}{360 \times 6} = \frac{15227}{2166} = 7.03 = 7$
211. 4; $? \times 116 = 4003 \times 77 - 21015$
 $= 308231 - 21015 = 287216$
 $\therefore ? = \frac{287216}{116} = 2476$
212. 1; $\left[(5\sqrt{7} + \sqrt{7}) \times (4\sqrt{7} + 8\sqrt{7}) \right] - (19)^2 = ?$
 $= \left[20 \times 7 + 4 \times 7 + 8 \times 7 + 40 \times 7 \right] - 361$
 $= \left[140 + 28 + 56 + 280 \right] - 361$
 $\therefore ? = 504 - 361 = 143$
213. 2; $? = (4444 \div 40) + (645 \div 25)$
 $+ (3991 + 26) = \frac{4440}{40} + \frac{645}{25} + \frac{3991}{26}$
 $= 111.1 + 25.8 + 153.5 = 290.4$
214. 5; $(?)^2 + (37)^2 = 182 \times 51 - (83)^2$
or, $(?)^2 + (37)^2 = 182 \times 51 - (83)^2$
or, $(?)^2 + (37)^2 = 182 \times 51 - (83)^2$
or, $(?)^2 + (37)^2 = 332124 \times \sqrt{2601} - (83)^2$
or, $(?)^2 + 399 = 282 - 6889 = 2393$
or, $(?)^2 = 2393 - 1369 = 1024$
 $\therefore ? = \sqrt{1024} = 32$
215. 2; $? = 5\frac{17}{37} \times 4\frac{51}{52} \times 11\frac{1}{7} + 2\frac{3}{4}$
 $= \frac{202}{37} \times \frac{259}{52} \times \frac{7}{7} + \frac{11}{4}$
 $= \frac{1223}{4} = 305.75$
216. 3; $? = 8787 \div 343 \times \sqrt{50}$
 $\therefore ? = 25.61 \times 7.07 = 181.09 \approx 180$
217. 2; $\sqrt[3]{54881} \times (303 \div 8) = (?)^2$
or, $38 \times 37.8 = (?)^2$ ($\therefore 37.8 \approx 38$)
or, $38 \times 38 = (?)^2$ ($\therefore 37.8 \times 38$)
or, $38 \times 38 = (?)^2$ ($\therefore 37.8 \times 38$)
or, $38 \times 38 = (?)^2$ ($\therefore 37.8 \times 38$)
 $\therefore ? = \sqrt{38 \times 38} = 38$
218. 3; $? = \frac{5}{8} \times 4011.33 + \frac{7}{10} \times 3411.22$

276. 4;
$$? = \frac{68 \times 1288}{100} + \frac{26 \times 734}{100} - 215$$

$$= 875.84 + 190.84 - 215$$

$$= 876 + 191 - 215 = 852 \approx 850$$
277. 2; $? = (32.05)^2 - (18.9)^2 - (11.9)^2$

$$= 1027 - 357 - 144 = 526 \approx 530$$
278. 2; $? = \frac{6578 \times 15}{67 \times 6} = 250$
279. 5; $? = \frac{680}{45} \times \frac{2130}{23} \times \frac{126}{169} = \frac{680}{45} \times \frac{2130}{23} \times \frac{126}{170}$

$$= 1043 \approx 1040$$
280. 3; $\sqrt{5687} \times \sqrt{1245} + \sqrt{689} = ?+13$

$$\therefore ? = \frac{\sqrt{5687} \times \sqrt{1245} \times 13}{\sqrt{689}}$$

$$= \frac{74.4 \times 35.2 \times 13}{26.2} \approx 1320$$
281. 3; $(a + b)^2 = a^2 + 2ab + b^2$
Now,
$$\frac{(3.4 + 2.4)^2}{(0.7 + 0.3)^2} = 7^2$$
or, $?^2 = \frac{36}{1} = 36$

$$\therefore ? = \sqrt{36} = 6$$
282. 5; $(1.2)^{1.7} \times ((1.2)^{2})^{0.7} + ((1.2)^2)^{-1.45} + ((1.2)^{2})^3$

$$= 1.2^{1.7} \times 1.2^{1.4} + 1.2^{2.9} + 1.2^6$$

$$= (1.2)^{1.7+1.4} \cdot (2.9) \cdot 6 = (1.2)^{6.6} = (1.2)^6 = 1$$
283. 1; $(10019)^2 = (10000 + 19)^2$

$$= 100000000 + 380000 + 361 = 100380361$$
284. 2; $? = \frac{3 \times 11 \times 5 \times 20475}{7 \times 5 \times 13 \times 275} = 27$
285. 4; $\frac{340 \times 745}{100} - 2000 = \frac{?}{100} \times \frac{1}{10}$
or, $? = 533 \times 1000 = 533000$
286. 3; $\frac{340 \times 705}{100} + \frac{136 \times 1330}{100}$

$$= 2397 + 1808.8 = 4202.5 \approx 4200$$
287. 2; $? = 30 \times 14 + 40 \times 12 = 420 + 480 = 900$
288. 1; $? = \frac{230855}{570 \times 9} = 45$
289. 3; $33.33 \times 33.33 = \frac{3333 \times 3333}{1000}$

$$= 11108.889 \approx 11110$$
290. 4; $\frac{1.7 \times 1600}{100} + \frac{0.7 \times 1000}{100}$

$$= 27.2 + 7 \approx 34$$

$$291. 3; $(14)^7 = (14)^{0.2} \times (14)^{1.3} \times (14)^{31.4} + (14)^4$

$$= 140^{7.4} = (14)^3$$
292. 4; $? = \frac{83300}{35 \times 85} = 28$$$

293. 2:
$$\sqrt{(10648)^{\frac{3}{2}} - (7776)^{\frac{3}{2}}} = \frac{4}{2}$$
?

or, $\sqrt{(22^3)^{\frac{3}{3}} - (6^3)^{\frac{3}{5}}} = \frac{4}{2}$?

or, $\sqrt{(2^3)^{\frac{3}{3}} - (6^3)^{\frac{3}{5}}} = \frac{4}{2}$?

294. 2: $(2)^2 = 1224 \times 306 = (18 \times 17 \times 4) \times (18 \times 17) = (18 \times 17 \times 2)^2 = (18 \times 17 \times 2)^2 = (18 \times 17 \times 2) = 612$

295. 1: $\frac{8}{15} + \frac{4}{25} = \frac{40 + 12}{75} = \frac{52}{75}$

Now, $? = \frac{780 \times 75}{52} = 1125$

296. 2: $\frac{127 \times 75}{100} + \frac{28 \times 277}{100} = 95.25 + 77.56 = 172.81 \times 173$

297. 3: $\frac{0.0324 + 2.56}{0.08} = \frac{2.5924}{0.08} = 32.4 \times 32$

298. 4; $? \times (60 \div 2) \times 7 - 18 \times 3 = 210 - 54 = 156 \times 155$

298. 4; $? \times (60 \div 2) \times 7 - 18 \times 3 = 210 - 54 = 156 \times 155$

299. 2: $(110)^3 = 13310000 \times 1330000$

300. 3; $? = (8843 - (12 \times 2 \times 7)) \times 2.5 = (8843 - 168) \times 2.5 = 8675 \times 2.5$
 $= 21687.5 \times 21700$

301. 3; $17 \times 17^2 = (17)^{8.8} \times (17)^{2+1.4} \div (17)^1 = (17)^{18.8 - 2.8 - 1} = (17)^5$

or $17^2 = 17^{5-1} = 17^4$
 $\therefore ? = 4$

302. 5; $\frac{30 \times ?}{100} = \frac{2.4 \times 775}{100} + \frac{8.4 \times 525}{100}$
 $= 18.6 + 44.1 = 62.7$
 $\therefore ? = \frac{62.7 \times 100}{30} = \frac{627}{30} = 209$

303. 3; $? = \frac{0.00102}{0.000017} \times 17.75 = \frac{1020}{17} \times 17.75$
 $= 60 \times 17.75 = 1065$

304. 1; $(12^3)^{\frac{3}{2}} \div (18^3)^{\frac{3}{2}} = (12)^2 \div (18)^2$
 $= (12)^2 \times (18)^2$
 $\therefore ? = \frac{12 \times 12 \times 18 \times 18}{9} = 5184$

305. 2; $= \frac{45 \times ?}{100} = \frac{1260}{28} \times 6.4 = 45 \times 6.4$
 $\therefore ? = 6.4 \times 100 = 640$

306. 2; $? = \frac{20300}{159 \times 16} = 7.979 \times 8$

307. 3; $? = \frac{142 \times 72}{36} = 284 \times 285$

308. 3; $? \approx \frac{2.8 \times 1725}{100} + \frac{1.74 \times 555}{100}$

100

 $= 48.3 + 9.657 = 57.957 \approx 58$

309. 1;
$$? \approx \frac{(1370 + 19 \times 20)}{25} = \frac{1370 + 380}{25} = \frac{1750}{25} = 70$$
310. 3; $? = \frac{7392}{44} + 18 \times 4.5$

$$= 168 + 81 = 249 \approx 250$$
311. 3; $\frac{85 \times 4 \times 6755}{100 \times 7} - 1687 = 17 \times 193 - 1687$

$$= 3281 - 1687 = 1594$$

312. 1;
$$(?)^{\frac{1}{2}} = \left(\frac{5568}{87}\right)^{\frac{1}{3}} + (144)^{\frac{1}{2}}$$

= $(64)^{\frac{1}{3}} + (12^2)^{\frac{1}{2}} = (4^3)^{\frac{1}{3}} + (12^2)^{\frac{1}{2}}$
= $4 + 12 = 16$

313. 4;
$$(?)^2 = \sqrt{13^2 + 28 \div 4 - (3)^3 + 107}$$

= $\sqrt{169 + 7 - 27 + 107}$
= $\sqrt{283 - 27} = \sqrt{256} = 16$
 $\therefore ? = \sqrt{16} = 4$
314. 2: $(0.7)^{2+3} = (0.7)^{2 \times 4} + (0.7)^{3 \times 4} \div$

314. 2;
$$(0.7)^{2+3} = (0.7)^{2 \times 4} + (0.7)^{3 \times 4} \div (0.7)^{4 \times 4}$$

= $(0.7)^{8+12-16} = (0.7)^4$
 $\therefore ? = 4 - 3 - 1$

315. 5;
$$\sqrt{2025} = 45$$

Now,
$$\frac{45 \times 45}{0.01 \times 100} = (?)^2 \div 25$$

or,
$$2025 = \frac{(?)^2}{25}$$

or. $(?)^2 = 50625$

$$? = \sqrt{50625} = 225$$

Thus, 557 is the second largest number amongst them

Hence, 59 is the highest amongst them.

318. 2; 1)
$$\left(\frac{5}{9} \times 1250\right)^{\frac{1}{2}} = \sqrt{\frac{5 \times 1250}{9}} = \sqrt{\frac{6250}{9}}$$

$$= \frac{79.05}{3} = 26.35 \approx 26$$
2) $\left(\frac{7}{13} \times 4112\right)^{\frac{1}{3}} = \left(\frac{28784}{13}\right)^{\frac{1}{3}}$

$$= \sqrt[3]{2214} \approx (13.1)^{3 \times \frac{1}{3}} = 13.11$$
3) $\left(\frac{5}{19} \times 3221\right)^{\frac{1}{2}} = \left(\frac{16105}{19}\right)^{\frac{1}{2}} = \sqrt{847} \approx \sqrt{841} = 29$

4)
$$\left(\frac{15}{11} \times 412\right)^{\frac{1}{2}} = \left(\frac{6180}{11}\right)^{\frac{1}{2}} = \sqrt{561} = 23.7 \approx 24$$

5)
$$\left(\frac{17}{13} \times 3444\right)^{\frac{1}{3}} = \left(\frac{58548}{13}\right)^{\frac{1}{3}} = \sqrt[3]{4503} = 16.5$$

Hence, 13.1 is the smallest number among them.

Cost of 8 × 12 eggs =
$$\frac{256}{8 \times 12}$$

Hence cost of 9 eggs =
$$\frac{256 \times 9}{8 \times 12}$$

= $(256 \times 9) \div (8 \times 12)$

320. 5;
$$\frac{24 \times 4568}{100} \div \frac{8 \times 246}{100} = 1096.32 \div 19.68$$

= 55.69 \approx 55

321. 3;
$$\frac{? \times 168}{100} = 22.68 - 10.08 = 12.6$$

$$\therefore ? = \frac{12.6 \times 100}{168} = 7.5$$

322. 2;
$$\sqrt{70.56} \div (70.56)^{\frac{-3}{2}} = (8.4)^{?}$$

or, $8.4 \div (8.4)^{2x-\frac{3}{2}} = (8.4)^{?}$
or, $(8.4)^{?} = 8.4^{1+3} = 8^{4}$
 $\therefore ? = 4$
323. 2; $\frac{? \times 2576}{100} = \frac{17.5 \times 1520}{100} - \frac{8.75 \times 1200}{100}$

$$= \frac{26600 - 10500}{100} = \frac{16100}{2576} = 6.25$$
324. 5; ? × 9= $\frac{26}{3}$ × I263 + $\frac{41}{9}$ × 1179

$$= 26 \times 421 + 41 \times 131 = 10946 + 5371$$

$$\therefore ? = \frac{16317}{9} = 1813$$

325. 4;
$$\frac{75 \times ?}{100} = \frac{32 \times 885}{100} - \frac{20 \times 66}{100}$$

= 283.2 - 13.2 = 270
 $\therefore ? = \frac{270 \times 100}{75} = 360$

326. 3; ? =
$$12.8 \times 8.5 = 108.8 \approx 110$$

327. 2; ? = $(22 \times 3.5) \times 12 = 924 \approx 925$
328. 4; ? = $29 \times 25 - 8 \times 15 = 725 - 120 = 605 \approx 600$

329. 1;
$$? = \frac{245 \times 50}{100} - \frac{115 \times 42}{100}$$

 \therefore ? = 122.5 - 48.3 = 74.2 \approx 75

330. 3;
$$? = \sqrt{5930} \times \sqrt[3]{43} \approx 77 \times 3.5$$

= 269.5 \approx 270

331. 2;
$$\frac{12.5 \times ?}{100} = \frac{144 \times 75}{100} - \frac{48 \times 150}{100} + \frac{4.8 \times 2250}{100}$$

= 108 - 72 + 108 = 144

$$\therefore ? = 144 \times \frac{100}{12.5} = 1152$$
332. 2; $? = \frac{3}{8} \times \frac{2}{5} \times \frac{13}{7} \times \frac{35}{100} \times 10780 = 10510.5$
333. 4; $? = 2 \times (174)^2 + 2 \times (84)^2 = 2\{(174)^2 + (84)^2\} = (174 + 84)^2 + (174 - 84)^2 = (258)^2 + (90)^2$

$$\therefore ? = 66564 + 8100 = 74664$$
334. 3; $? = (3+1+3-6) + \left(\frac{2}{3} + \frac{3}{4} + \frac{2}{7} - \frac{1}{2}\right)$

$$= 1 + \left(\frac{56+63+24-42}{84}\right) = 1 + \left(\frac{101}{84}\right) = 2\frac{17}{84}$$
335. 2; $11^7 \div 2 = (11^3)^{\frac{2}{3}} \times (22^2)^{\frac{1}{2}} \div (11^2)^{-1}$

$$= 1 + \left(\frac{56 + 63 + 24 - 42}{84}\right) = 1 + \left(\frac{101}{84}\right) = 2\frac{17}{84}$$
335. 2: $11^{?} \div 2 = (11^{3})^{\frac{2}{3}} \times (22^{2})^{-\frac{1}{2}} \div (11^{2})^{-1}$

$$= (11)^{2} \times (22)^{-1} \times (11)^{2}$$

$$\frac{(11)^{?}}{2} = \frac{(11)^{2} \times (11)^{2}}{11 \times 2} = \frac{(11)^{3}}{2}$$

336. 4;
$$? \approx \left\{48 \div \frac{12}{8.5}\right\} \times 7.5 = 34 \times 7.5 = 255$$

= $(212.395 + 56.55) \times 12.5$
= $268.945 \times 12.5 = 3361.8 \approx 3360$

338. 3; ?
$$\approx$$
 (184 × 45) \div 9 = 184 × 5 = 920
339. 5; ? \approx {(220 × 25) - (24 × 55)}" × 8.5
= (5500 - 1320) × 8.5 = 4180 × 8.5
= 35530 \approx 35500

340. 1; ?
$$\approx$$
 (33.5 × 184) + $\frac{465 \times 172}{100}$
= 6164 + 800 = 6964 \approx 6960

341. 3;
$$\sqrt{?} = \sqrt{(46656)^{\frac{1}{3}}} + \sqrt{462.25}$$

$$= \sqrt{(36)^{3 \times \frac{1}{3}}} + \sqrt{(21.5)^2}$$
or, $\sqrt{?} = \sqrt{36} + 21.5 = 6 + 21.5 = 27.5$

$$\therefore ? = 27.5 \times 27.5 = 756.25$$

342. 2;
$$\frac{1}{6} \times \frac{300}{700} \times \frac{500}{700} \times 4116$$

= $\frac{1}{6} \times \frac{3}{7} \times \frac{5}{7} \times 4116$
= $42 \times 5 = 210$

343. 2;
$$\frac{? \times 630}{100} = \frac{88 \times 1500}{100} + \frac{75 \times 340}{100}$$

= 1320 + 255 = 1575
or, ? × 630 = 1575 × 100
 \therefore ? = $\frac{157500}{630} = 250$

344. 4;
$$\{(6)^{3.6} \div (36)^{-4.2}\}^{\frac{1}{4}} = \sqrt{?}$$

or,
$$\left\{6^{3.6} \div (6)^{2x-4.2}\right\}^{\frac{1}{4}} = \sqrt{?}$$

or,
$$\left\{ (6)^{3.6+8.4} \right\}^{\frac{1}{4}} = \sqrt{?}$$

or,
$$6^{\frac{12}{4}} = \sqrt{?}$$

or,
$$6^3 = \sqrt{?}$$

$$\therefore$$
 ? = 216 × 216 = 46656

345. 3;
$$(?)^3 = \sqrt{32041} \times \sqrt{3364} - (56)^2 - 387$$

= 179 × 58 - 3136 - 387
= 10382 - 3523 = 6859
 $\therefore ? = \sqrt[3]{19 \times 19 \times 19} = 19$

346. 2;
$$\frac{260 \times ?}{100} = \frac{131 \times 458}{100} + \frac{341 \times 130}{100}$$

or,
$$\frac{260 \times ?}{100} = 599.98 + 443.3 = 1043.28$$

or,
$$260 \times ? = 104328$$

$$? = \frac{104328}{260} = 401.26 \approx 402$$

$$\sqrt[4]{(?)^2} = \sqrt[3]{5830} + \sqrt{10600} = \sqrt{5832} + \sqrt{10609}$$
$$= \sqrt[3]{18 \times 18 \times 18} + \sqrt{103 \times 103}$$
$$\text{or, } \sqrt[4]{(?)^2} = 18 + 103 = 121$$

or,
$$(?)^{\frac{2}{4}} = 121$$

or,
$$(?)^{\frac{1}{2}} = 121$$

348. 2;
$$23\frac{1}{3}\%$$
 of ?= $\sqrt{144.98\%$ of 2163.05

or,
$$\frac{70 \times ?}{3 \times 100} = \sqrt{\frac{145 \times 2163}{100}}$$

or,
$$\frac{70 \times ?}{300} = \sqrt{1.45 \times 2163}$$

$$=\sqrt{3136.35}\approx 56$$

$$\therefore$$
? = $\frac{56 \times 300}{70}$ = 240

349. 4;
$$\sqrt{?} = \frac{26100}{9800} \times \frac{1640}{7400} \times \frac{4660}{390}$$

$$\sqrt{?} = \frac{26}{98} \times \frac{16.40}{74} \times \frac{4660}{390} = \frac{1987024}{2828280} \approx 7.03$$

$$\frac{47 \times 440}{100} + \frac{446 \times 370}{100}$$

$$= 47 \times 4.40 + 4.46 \times 370$$

$$= 206.8 + 1650.2 = 1857 \approx 1860$$

351. 3; ? =
$$(3749.3409 + 2309.9413 + 13.0405) - (2959.9987 + 1350.009 + 113.45)$$

49

```
= ?% of 6126 + 50% of 5638
            = 6072.3227 - 4423.4577 = 1648.865
352. 5; ? = 137.5 × 33.75 - 43.52 × 73.5 + \frac{3}{11} × 14641
                                                                                                 or, \frac{5}{14} of 6510 + \frac{7}{9} of 5886 - \frac{1}{2} of 5638
            = 4640.625 - 3198.72 + 3 \times 1331
           = 1441.905 + 3993 = 5434.905
                                                                                                  or, \frac{? \times 6126}{100} = 2325 + 4578 - 2819 = 4084
353. 4; 196 \times 14 + 256 = ? - 14
           or, ? = 2744 + 256 + 14 = 3014
354. \ 3; \ 0.006 \times 30 + 1.0034 = ? - 34
                                                                                                  \therefore ? = \frac{4084}{6126} \times 100 = 66.66
           or, ? = 0.18 + 1.0034 + 34 = 35.1834
355. \ 2; \ 14.5 + 4.05 + 139.25 = 157.80
                                                                                      362. 3; \sqrt[3]{262144} + (15129)^{\frac{1}{2}} = \sqrt{(6561)^{\frac{1}{2}}} + ?
356. 1; 29.099 ≈ 29.10 and 8.807 ≈ 8.80 and 17.901 ≈ 18
                                                                                                  or, 64 + 123 = 9 + ?
            29.10 \times 8.80 \times 18 = 256.08 \times 18
                                                                                                 or, ? = 178
            = 4609.44 \approx 4605
                                                                                                  ∴ ? = 178
357. 3; ? = 4\frac{7}{8} \times 7\frac{4}{5} \times 3\frac{4}{5} = \frac{39}{8} \times \frac{39}{5} \times \frac{19}{5}
                                                                                      363. 1; 0.36 \times 6550 + 0.8 \times 5625 - 0.6 \times 9530
                                                                                                  = ?% of 4560
            =\frac{1521\times19}{200}
                                                                                                 or, \frac{?\times4560}{100} = 2358 + 4500 - 5718 = 1140
            \therefore ? = \frac{28899}{200} = 144.495 \approx 144
                                                                                                  \therefore? = \frac{1140}{4560}×100 = 25
358. 2: (50243408)^{\frac{1}{3}} \approx (50243409)^{\frac{1}{3}} = 369
                                                                                      364. 1; (27)^2 + \sqrt[3]{5832} = ?\% of 5976
                                                                                                  or, \frac{? \times 5976}{100} = 729 + 18 = 747
            and. (48627124)^{\frac{1}{3}} \approx (48627125)^{\frac{1}{3}} = 365
            Again, (7529535)^{\frac{1}{3}} \approx (7529536)^{\frac{1}{3}} = 196
                                                                                                  \therefore? = \frac{747}{5976} \times 100 = 12\frac{1}{2}
            ? = (50243408)^{\frac{1}{3}} - (48627125)^{\frac{1}{3}} + (7529536)^{\frac{1}{3}}
                                                                                     365. 4; 7\frac{3}{4} \div 46\frac{1}{2} \times 8\frac{2}{3} + 2\frac{5}{9} = (?)^2
            = (50243409)^{\frac{1}{3}} - (48627124)^{\frac{1}{3}} + (7529536)^{\frac{1}{3}}
                                                                                                  or, (?)^2 = \frac{31}{4} \times \frac{2}{93} \times \frac{26}{3} \times \frac{23}{9} = 4
359. 3;
            14.7 \times 8.41 + 23.7 \times 6.31 = ? + 14.039 \times 7.81
                                                                                                 or, (?)^2 = (2)^2
            Now, 8.41 \approx 8.4 and 6.31 \approx 6.3 and 14.039 \approx 14
            and 7.81 ≈ 7.8
                                                                                      366. 1; \frac{? \times 4896}{100} = \frac{79 \times 9876}{100} - \frac{38 \times 6785}{100} - 2479
            14.7 \times 8.4 + 23.7 \times 6.3 = ? + 14 \times 7.8
            or 123.48 + 149.31 = ? + 109.2
                                                                                                  = 0.79 \times 9876 - 0.38 \times 6785 - 2479
            Again, 123.48 \approx 123, 149.31 \approx 149
                                                                                                  = 7802 - 2578 - 2479
            and 109.2 ≈ 109
                                                                                                  = 7802 - 5057 = 2745
            So, 123 + 149 = ? + 109
                                                                                                  \therefore? = \frac{2745}{4896} \times 100 = 56.06 \approx 56
           or, ? = 272 - 109 = 163 \approx 160
360. 2; (862.415)^2 = (862)^2 + (862 + 863) \times 4.15
           = 743044 + 1725 \times 4.15
                                                                                     367. 5; (?)^2 = \sqrt{(4096)^{\frac{1}{3}}} \times \sqrt{65536}
            = 743044 + 715.87 = 743760
            In the same way,
                                                                                                  = \sqrt{16^{3 \times \frac{1}{3}}} = \sqrt{16^4}
           (798.375)^2 = (798)^2 + (798 + 799) \times 0.375
            = 636804 + 1597 \times 0.375
                                                                                                  = 4 \times 16 \times 16 = 256 \times 4 = 1024
            = 636804 + 598.875
            = 637402
                                                                                                  \therefore ? = \sqrt{1024} = 32
           Now.
                                                                                      368. 3; 5030.05 \div 42.93 + 24.49\% of 5049.93 \div 100 = ?
            ? = (862.415)^2 - (798.315)^2 - (37.375)^2 + (191.499)^2
                                                                                                  or ? = 5030 \div 43 + 24.5\% of 5050 \div 100
            = 743760 - 637402 - 1397 + 36672
                                                                                                  or, ? = 116.9764 + 1237.25 \div 100
            = 141633 ≈ 141630
                                                                                                             117 + 13 ≈ 130
                                                                                                  ∴ ? = 130
361. 2; 35\frac{5}{7}\% of 6510 + 77\frac{7}{9}\% of 5886
                                                                                      369. \ 2; 52920 \div 3214 \times 514 + 5232 = ?
                                                                                                 or ? = 16.46 \times 514 + 5232
```

= 8460.44 + 5232 = 13692.44
$$\approx$$
 13695
370. 1; $\sqrt[3]{6850} \times \sqrt{12541} = ?\times 52$
or, ? = $\frac{19 \times 112}{52}$
 \therefore ? = 40.89 \approx 41
371. 2; $\frac{13.2 \times 142}{100} - \frac{23.9 \times 56}{100} = \frac{24 \times ?}{100}$
or, 13.2 \times 1.42 - 23.9 \times 0.56 = $\frac{24 \times ?}{100}$
or, $\frac{24 \times ?}{100} = 18.744 - 13.104$
? = $\frac{5.64 \times 100}{24} = \frac{564}{24} = 23.5$

372. 3;
$$(47.2)^2 + (52.6)^2 - (23.1)^2 = ? + 2142.69$$

? = 2227.89 + 2766.76 - 53361 - 2142.69 = 2318.30

373. 4; $? = \sqrt{11449} \times \sqrt{16641} \times \sqrt[3]{35937} \div 9 + 2033$

or,? =
$$\frac{107 \times 129 \times 33}{9} + 2033$$

= 50611 + 2033 = 52644

374. 5;
$$4\frac{19}{32} \times 3\frac{1}{21} \times 2\frac{5}{8} = ?+15\frac{1}{2}$$

or,? = $\frac{147}{32} \times \frac{64}{21} \times \frac{21}{8} - \frac{31}{2}$
= $\frac{147}{4} - \frac{31}{2} = \frac{85}{4} = 21\frac{1}{4} = 21.25$

375. 1;
$$\frac{? \times 840}{100} = \frac{7}{13} \times \frac{100}{300} \times \frac{18.75}{100} \times 6240$$

or, $\frac{? \times 840}{100} = \frac{7}{13} \times \frac{1}{3} \times \frac{3}{16} \times 6240 = 210$
 $\therefore ? = \frac{210 \times 100}{840} = 25$

376. 2;
$$(?)^3 = \sqrt{6398.99} \div \sqrt[3]{4099.99} \times 24.89$$

or, $(?)^3 = 80 \div \sqrt{16 \times 16 \times 16} \times 25$ ($\therefore \sqrt{4100} \approx \sqrt{4096}$)
or, $(?)^3 = 80 \div 16 \times 25$
or, $(?)^3 = 125 = 5^3$

377. 4;
$$(?)^2 = \left(\frac{88 \times 7160}{100} - \frac{69 \times 8940}{100}\right) \times 6$$

= $(88 \times 71.60 - 69 \times 89.40) \times 6$
= $(6300 - 6168) \times 6$
= $132 \times 6 = 792$
 $\therefore ? = \sqrt{792} = 28.14 \approx 28$

378. 2;
$$\frac{40 \times ?}{100} = \frac{449 \times 346}{64}$$

or,? = $\frac{449 \times 346 \times 100}{64 \times 40} = 6068.5 \approx 6065$

379. 4; 37.9% of 638.05 + 25.25% of 4401.9 = ?

or, ? = 38% of 638 + 25% of 4402 = 242.44 + 1100.5 = 1342.94
$$\therefore$$
 ? = 1345

380. 4;
$$\frac{? \times 20}{100}$$
 = 834 - 543 - 109 = 182
 \therefore ? = 182 × 5 = 910

382. 3; ? =
$$\sqrt{17161} \times 18 + 92 \times 94 + \frac{2}{5}$$
 of 125
= 131 × 18 + 8648 + 50
= 2358 + 8648 + 50 = 11056

or,
$$\frac{?}{100} \times 650 + 210 = 275$$

or,
$$6.5 \times ? = 275 - 210 = 65$$

$$\therefore ? = \frac{650}{65} = 10$$

385. 4:

384. 3; ? =
$$\sqrt[3]{12167} \times \sqrt{11881} + 70\% \text{ of } 6210$$

= 23 x 109 + $\frac{70}{100} \times 6210$
= 2507 + 4347 = 6854

? =
$$\sqrt[3]{35937} \times \sqrt[3]{1331} \div \sqrt{121} + 60\%$$
 of 1295
= 33 × 11 ÷ 11 + $\frac{3}{5}$ × 1295
= 33 + 777 = 810

386. 3;
$$? = \sqrt{795664} \times \sqrt[3]{5832} - \sqrt{676.9932}$$

= 892 × 18 - 26
= 16056 - 26 = 16030

387. 4;
$$? = 1325\sqrt{16.0123} + 25\% \text{ of } 161.043 - \frac{3}{4} \text{ of } 84.31$$

$$\approx 1325 \times 4 + \frac{1}{4} \times 160 - \frac{3}{4} \times 84$$

$$= 5300 + 40 - 63$$

$$= 5300 - 23 = 5277 \approx 5280$$
388. 1; ? = 0.5% × 449.93 × 0.8% of 674
$$= \frac{1}{2} \times 4.5 \times 0.8 \times 6.75 = 2.25 \times 54 = 121.5 \approx 122$$

389. 4;
$$? = \frac{2}{5}$$
 of $\sqrt[3]{91125} \times \sqrt{324.0013} \div \frac{2}{3}$ of 44.9934

$$\approx \frac{2}{5} \times 45 \times 18 \div \frac{2}{5}$$
 of 45

$$= \frac{2}{5} \times 45 \times 18 \div 18 = 18$$

$$\begin{array}{c} *85 \times 225 + 43 \times 43 & 40 \times 150 \\ = 85 \times 2.25 + 43 \times 43 & \frac{2}{5} \times 150 \\ = 191 + 1849 - 60 = 1920 \\ 391, \ 4; \ 7 - ? - \frac{15}{100} \times 240 - 107 & \frac{25}{100} \times 160 \\ = 36 \times 107 - 40 - 103 \\ 392, \ 4; \ ? = (64)^{14} \times (4)^{91} \times (4)^{17} \times 4^{4} \\ - (4)^{174} \times (4)^{91} \times (4)^{174} \times 4^{4} \\ - (4)^{174} \times (4)^{91} \times (4)^{174} \times 4^{4} \\ - (4)^{174} \times (4)^{91} \times (4)^{174} \times 4^{4} \\ - (4)^{174} \times (4)^{91} \times (4)^{174} \times 4^{4} \\ - (4)^{174} \times ($$

412. 3:
$$\frac{6000 \times ?}{100} = 45.5 \times 11.6 + 13.5 \times 7.2$$

 $= 527.8 + 97.2 = 625$
 $\therefore ? = \frac{625 \times 100}{6000} = 10.42\%$
413. 1: $? = \frac{77777}{700} + \frac{6455}{250} + \frac{3991}{26}$
 $= \frac{11111}{100} + \frac{1291}{50} + \frac{307}{2}$
 $= \frac{29043}{100} = 290.43$
414. 4: $\sqrt{?} = \{6^{3.6} \div (6^2)^{-4.2}\}^{1/4}$
 $= \{6^{3.6} \div 6^{-8.4}\}^{1/4} = \{6^{3.6+8.4}\}^{1/4}$
 $= \{6^{12}\}^{1/4} = 6^3 = 216$
 $\therefore ? = (216 \times 216) = 46656$
415. 3: $? = \frac{23564 \times 275 - 430100}{605}$
 $= \frac{6480100 - 430100}{605}$
 $= \frac{6050000}{605} = 10000 = 10^4$
416. 5: $? = 512.01 \times \frac{412.99}{119} = \frac{512 \times 413}{17 \times 7}$
 $= \frac{510 \times 413}{17 \times 7} = 30 \times 59 = 1770 \approx 1775$
417. 4: $? = \frac{1700 \times 300}{600} - 1498 + 3745$
 $= \frac{510000}{60} - 1498 + 3745$
 $= \frac{12245 - 1498}{600} = 10747 \approx 10750$
418. 2: $? \approx (14)^2 + (16.2)^2 + (17.25)^2 - 33$
 $\approx 756 - 33 = 723 \approx 720 \text{ (approximate)}$
419. 3: $? \approx 1625 \times 30 + 469$
 $= 48750 + 469 = 49219 \approx 49220$
420. 5: $? = \frac{8500}{375} \times 15 \approx 340$
421. 2: $\sqrt{24} + \sqrt{96} + \sqrt{216} + \sqrt{384} = 5\sqrt{2} \times ?$

or, $\sqrt{6 \times 4} + \sqrt{6 \times 16} + \sqrt{6 \times 36} + \sqrt{6 \times 64} = 5\sqrt{2} \times ?$

$$or, 2\sqrt{6} + 4\sqrt{6} + 6\sqrt{6} + 8\sqrt{6} = 5\sqrt{2} \times ?$$

$$or, \sqrt{6}(2+4+6+8) = 5\sqrt{2} \times ?$$

$$\therefore ? = \frac{20\sqrt{6}}{5\sqrt{2}} = 4\sqrt{3}$$

$$422.5; ? = 189\frac{2}{9} + 189\frac{3}{9} + 189\frac{4}{9} + 189\frac{5}{9} + 189\frac{6}{9}189\frac{7}{9}$$

$$= (189\times6) + \left(\frac{2}{9} + \frac{3}{9} + \frac{4}{9} + \frac{5}{9} + \frac{6}{9} + \frac{7}{9}\right)$$

$$= 1134 + \frac{2+3+4+5+6+7}{9} = 113 + \frac{27}{9}$$

$$= 1134 + 3 = 1137$$

$$423. 2: \sqrt{1369} \times \sqrt{1444} + \sqrt{?} = 1420$$

$$or, \sqrt{37^2} \times \sqrt{(38)^2} + \sqrt{?} = 1420$$

$$or, \sqrt{37} \times 38 + \sqrt{?} = 1420$$

$$or, 1406 + \sqrt{?} = 1420$$

$$or, \sqrt{?} = 1420 - 1406 = 14$$

$$\therefore ? = 196$$

$$424. 3: \sqrt{6889} + \sqrt{3721} + \sqrt{1024} - \sqrt{2401} = ?$$

$$or, ? = \sqrt{(83)^2} + \sqrt{(61)^2} + \sqrt{(32)^2} - \sqrt{(49)^2}$$

$$= 83 + 61 + 32 - 49 = 127$$

$$425. 4: ? = 3001 \times 99 + 11 - 6001 \times 8 + 401 \times 11 + (303)^2$$

$$= 3001 \times 99 - 6001 \times 8 + 401 \times 11 + (303)^2$$

$$= 27009 - 48008 + 4411 + 91809 = 75221$$

$$426. 1: ? = 3976 \times \frac{38}{100} + 1024 - 8271 \times \frac{13}{100} + \frac{7}{6} \times 3400$$

$$= 1510.88 + 1024 - 1075.23 + 3966.66$$

$$= 5426.31 = 5427$$

$$427. 3: \frac{987 \times 123}{9} = 13489$$

$$428. 2: ? = \sqrt{80} \times \frac{35}{6} \times 441 + 343$$

$$= \sqrt{16 \times 5} \times \frac{35}{6} \times 441 + 343$$

$$= 2\sqrt{5} \times 35 \times 147 + 343$$

$$= 2 \times 2.2 \times 35 \times 147 + 343$$

$$= 2 \times 2.2 \times 35 \times 147 + 343$$

$$= 2 \times 2.2 \times 35 \times 147 + 343$$

$$= 2 \times 4.3 \times 4 + 2\sqrt{12} + 6.5 \times 6 \times 2\sqrt{30}$$

$$-3(2+3+2\sqrt{6}) = 4(7+2\sqrt{12}) + 6(11+2\sqrt{30}) - 3(5+2\sqrt{6}) = 4(7+2\sqrt{12}) + 6(11+2\sqrt{30}) - 3(5+2\sqrt{6}) = 28+8\sqrt{12} + 66+12\sqrt{30} - 15-6\sqrt{6} = (28+66+15) + (8\sqrt{12}+12\sqrt{30}) - 6\sqrt{6}) = (28+66+15) + (8\sqrt{12}+12\sqrt{30}) - 6\sqrt{6}) = 79+16\sqrt{3} + 12\sqrt{30} - 6\sqrt{6} = 79+16\sqrt{30} + 12\sqrt{30} - 6\sqrt{6} = 79+16\sqrt{30} + 12\sqrt{30} + 12$$

$$= \sqrt{169 + 29 + 27 + 259} = \sqrt{484} = 22$$

$$447. 2: (?)^2 \times 3^2 = \sqrt{65.61} \div 0.9 \times 81$$

$$= \frac{8.1}{0.9} \times 81 = 9 \times 81 = 3^2 \times 3^4$$

$$or, ? = \sqrt{\frac{3^2 \times 3^4}{3^2}} = \sqrt{3^4} = 3^2 = 9$$

$$448. 4: ? = (15 - 14 + 18) + \left(\frac{2}{33} - \frac{17}{66} + \frac{19}{231}\right)$$

$$= 19 + \left(\frac{-53}{462}\right) = 18 + \left(1 - \frac{53}{462}\right)$$

$$= 18 + \left(\frac{462 - 53}{462}\right) = 18 + \frac{409}{462}$$

$$449. 3: 69\% \text{ of } 730 + 409.3 + 25\% \text{ of } ? = 1923$$

$$or, \frac{69 \times 730}{100} + 409.3 + \frac{25 \times ?}{100} = 1923$$

$$or, 503.7 + 409.3 + \frac{25 \times ?}{100} = 1923$$

$$or, 503.7 + 409.3 + \frac{25 \times ?}{100} = 1923$$

$$or, \frac{25 \times ?}{100} = 1923 + 913 = 1010$$

$$\therefore ? = \frac{1010 \times 100}{25} = 4040$$

$$450. 5: (1.44)^4 + \left(\frac{1728}{1000}\right)^3 \times (1.2)^3 = (1.2)^{7 + 2}$$

$$or, (1.2)^8 + (1.2)^9 \times (1.2)^{7 + 2}$$

$$or, (1.2)^8 - 9 + 3 + (1.2)^9 \times (1.2)^7 - 2$$

$$or, (1.2)^2 = (1.2)^{7 + 2}$$

$$or, (1.2)^2 = (1.2)^{7 + 2}$$

$$or, (1.2)^2 = (1.2)^{7 + 2}$$

$$or, (2.2)^3 + 191 + 620$$

$$= 823 - 620 = 203 \approx 204$$

$$452. 2: ? = (692)^2 + (305)^2 - (368)^2$$

$$= 478864 + 93025 - 135424$$

$$= 436465$$

453. 1; $\sqrt[3]{6859}$ ÷ 0.189 + 23% of 4200 + ?% of 520 =

1555.66

or,
$$\frac{19}{0.19} + \frac{23 \times 4200}{100} + \frac{? \times 520}{100} = 1550$$

or, $100 + 966 + \frac{? \times 520}{100} = 1556$

or, $\frac{? \times 520}{100} = 1556 - 1066 = 490$

or, $? = \frac{490 \times 100}{520} = 94.23 \approx 94$
 $454. \ 4; \ ? \times 3.75 = \frac{6780}{240} \times 35$

$$= 28.25 \times 35 = 988.75$$

$$\therefore ? = \frac{988.75}{3.75} = 263.66 \approx 265$$
 $455. \ 5; \ ? = 13 \times 15.5 + \frac{2.29}{69} \times 4.83 + 189.25$

$$= 201.5 + 2.3 \times 0.07 + 189.25$$

$$= 201.5 + 0.161 + 189.25$$

$$= 390.91 \approx 392$$
 $456. \ 2; \ ? = (28 - 10\sqrt{3})^{\frac{1}{2}} + (7 + 4\sqrt{3})^{\frac{1}{2}}$

$$= (5^2 + (\sqrt{3})^2 - 2 \times 5\sqrt{3})^{\frac{1}{2}} + (2^2 + (\sqrt{3})^2 + 2 \times 2\sqrt{3})^{\frac{1}{2}}$$

$$= (5^2 + (\sqrt{3})^2 - 2 \times 5\sqrt{3})^{\frac{1}{2}} + (2^2 + (\sqrt{3})^2 + 2 \times 2\sqrt{3})^{\frac{1}{2}}$$

$$= (5 - \sqrt{3})^2 |^{\frac{1}{2}} + [(2 + \sqrt{3})^2|^{\frac{1}{2}}$$

$$= 5 - \sqrt{3} + 2 + \sqrt{3} = 7$$

$$457. \ 3; \ ? = \frac{(0.99)^3 + (0.98)^3}{0.99 \times 0.99 - 099 \times 0.98 + 0.98 \times 0.98}$$

$$= \frac{(0.99 + 0.98) + (0.99^2 - 0.99 \times 0.98 + 0.98 \times 0.98}{0.99 \times 0.99 - 0.99 \times 0.98 + 0.98 \times 0.98}$$

$$= 0.99 + 0.98 = 1.97$$

$$458. \ 1; \ \left(\frac{64}{125}\right)^2 \times \left(\frac{4}{5}\right)^4 \times \left(\frac{16}{5}\right)^{2\times7+1} = \left(\frac{256}{625}\right)^{3\times7}$$

$$\text{or, } \left(\frac{4}{5}\right)^{3\times2} \times \left(\frac{4}{5}\right)^4 \times \left(\frac{4}{5}\right)^4 \times \left(\frac{4}{5}\right)^{4\times7+2} = \left(\frac{4}{5}\right)^{4\times(3\times7)}$$

$$\text{or, } \left(\frac{6}{5}\right)^6 \times \left(\frac{4}{5}\right)^4 \times \left(\frac{4}{5}\right)^2 \times \left(\frac{4}{5}\right)^{4\times7+2} = \left(\frac{4}{5}\right)^{12\times7}$$

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$$\begin{array}{c} 0r. \left(\frac{4}{5}\right)^{8i+2} = \left(\frac{4}{5}\right)^{207-8i7} \\ 0r. \left(\frac{4}{5}\right)^2 = \left(\frac{4}{5}\right)^{207-8i7} \\ 0r. 12 = 8 \times 7 \\ 0r. 7 = \frac{12}{8} = \frac{3}{2} \\ 459. 5: 7 = 189 \frac{42}{47} + 289 \frac{43}{47} + 389 \frac{44}{47} - 219 \frac{37}{47} - 125 \frac{13}{47} \\ -\left(189 + \frac{42}{47}\right) + \left(289 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{42}{47}\right) + \left(289 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{42}{47}\right) + \left(289 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{42}{47}\right) + \left(289 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{42}{47}\right) + \left(289 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{28}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{28}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{28}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{28}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{28}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{29}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{29}{47}\right) + \left(389 + \frac{43}{47}\right) + \left(389 + \frac{44}{47}\right) \\ = \left(189 + \frac{29}{47}\right) + \left(199 + \frac{37}{47}\right) +$$

or, 8.9 + 9 - 3.9 + 4 + 112 = ? + 5.91

 $= 11(2222 + 3333 + 4444 + 5555 - 6666 + 333 \times$

= 11 × (19217 - 6666) = 11 × 12551 = 138061
475. 1; ? = 472.05 × 101.32 + 337 + 472 - 137 × 0.5 ÷ 2
≈ 472.05 × 101.32 + 337 + 472 - 137 × 0.25
≈ 47672 + 809 - 34 ≈ 48447
476. 2; (?)³ =
$$(\sqrt{7} - \sqrt{10}) + (\sqrt{5} + \sqrt{14})^2 + 28$$

= $7 + 10 - 2\sqrt{70} + 5 + 14 + 2\sqrt{70} + 28 = 64$
∴ ? = $\sqrt[3]{64} = 4$
477. 4; ? × 2.56 = 64% of $\sqrt{409600} \div 1.6$

477. 4; ? × 2.56 = 64% of
$$\sqrt{409600} \div 1.6$$

= $\frac{64 \times 640}{100} \div 1.6 = \frac{64 \times 640}{100 \times 1.6} = 256$
 $\therefore ? = \frac{256}{2.56} = 100$

478. 3; 38.4% of 1450 + 78.2% of 240 -
$$?^2$$
 = 20% of 77.4

or,
$$?^2 = \frac{28.4 \times 1450}{100} + \frac{78.2 \times 240}{100} - \frac{20 \times 77.4}{100}$$

= 556.8 + 187.68 - 15.48
= 744.48 - 15.48 = 729
\therefore\tau? = $\sqrt{729}$ = 27

479. 4;
$$(2.89)^4 \div (4913 \div 1000)^3 \times (0.17 \times 10)^3$$

= $(1.7)^{7-3}$
or, $(1.7)^8 \div (1.7)^{3\times3} \times (1.7)^3 = (1.7)^{7-3}$
or, $(1.7)^8 \div (1.7)^9 \times (1.7)^3 = (1.7)^{7-3}$
or, $(1.7)^{8-9+3} = (1.7)^{7-3}$
or, $(1.7)^2 = (1.7)^{7-3}$
 $\therefore ? - 3 = 2$
or, $? = 3 + 2 = 5$

480. 1;
$$\sqrt[3]{5.832}$$
 + 35% of 6500 - ?% of 1250 = 222.8

or,
$$1.8 + \frac{35 \times 6500}{100} - \frac{? \times 1250}{100} = 222.8$$

or,
$$1.8 + 2275 - 222.8 = \frac{? \times 1250}{100}$$

or,
$$? = \frac{(2276.8 - 222.8) \times 100}{1250}$$

$$=\frac{2054\times100}{1250}=164.32$$

481. 2;
$$? = \frac{69 \times 1298}{100} + \frac{27 \times 729}{100} - 469$$

= 896 + 197 - 467 \approx 624

482. 1; ?
$$\times$$
 6 = 9685 ÷ 125 \times 14 = 77.48 \times 14 = 1084.72 \approx 1085

$$\therefore ? = \frac{1085}{6} = 180.83 \approx 181$$

483. 4; ? =
$$(67.5)^2$$
 - $(43.2)^2$ - $(12.9)^2$
? = 4556.25 - 1866.24 - 166.41
= 4556 - 1866 - $166 \approx 2524 \approx 2525$

$$= \frac{170 \times 1800}{100} + \frac{6.25 \times 1452}{100} - \frac{350 \times 750}{100}$$

$$= 3060 + 90.75 - 2625$$

$$= 3150.75 - 2625 \approx 525.75 \approx 528$$

485. 2;
$$\frac{779}{3.5} \div \sqrt[3]{1331} + ?\% \text{ of } 650 = 185.25$$

or,
$$222.57 \div 11 + \frac{? \times 650}{100} = 185.25$$

or,
$$\frac{? \times 650}{100} = 185.25 - 20.23 = 165.02$$

or,
$$? = \frac{165 \times 100}{650} = 25.38 \approx 25$$

486. 4;
$$? = \{(42875)^{\frac{1}{3}} + (46656)^{\frac{1}{3}} + 9\} \times \{(39304)^{\frac{1}{3}} + (35937)^{\frac{1}{3}} - 7\} \div \frac{(16)^2}{4}$$

$$= (35 + 36 + 9) \times (34 + 33 - 7) \div \frac{256}{4}$$

$$= (80 \times 60) \div 64 = \frac{4800}{64} = 75$$

487. 3;
$$? = 38\frac{28}{17} + 49\frac{19}{17} + 121\frac{21}{17} + 234\frac{25}{17}$$

$$-129\frac{22}{17} - 89\frac{29}{17}$$

$$(\frac{28}{17} + \frac{19}{17} + \frac{21}{17} + \frac{25}{17} - \frac{22}{17} - \frac{29}{17})$$

$$=224+\left(\frac{28+19+21+25-22-29}{17}\right)$$

$$=224+\frac{42}{17}=(224+2)+\frac{8}{17}=226\frac{8}{17}$$

488. 5;
$$? = 101 \times 98 + 202 \times 90 + 300 \times 101 + 400 \times 101$$

 $- 505 \times 101$
 $= 101(98 + 180 + 300 + 400 - 505)$
 $= 101 \times 473 = 47773$

489. 2:
$$? = \sqrt{1225} + \sqrt{5625} - \sqrt{4761} + (2197)^{\frac{1}{3}} \times$$

$$(2744)^{\frac{1}{3}} - \sqrt{2401}$$
= 35 + 75 - 69 + 13 × 14 - 49
= 35 + 75 - 69 + 182 - 49 = 174

490. 1; ? =
$$(18)^{8.4} \times (324)^{4.2} \times (16)^4 \times (256)^{6.4}$$

= $(18)^{8.4} \times (18)^{2 \times 4.2} \times (16)^4 \times (16)^{2 \times 6.4}$
= $(18)^{8.4} + 8.4 \times (16)^{4 + 12.8}$
= $(18)^{16.8} \times (16)^{16.8}$
= $(18 \times 16)^{16.8} = (288)^{16.8}$
491. 4; ? = $20.05 \times 13.6 + 40.2 \times 30.1 + 5.5 \times 2.2 - 10.5 \times 2 + 1111.001 - 201.002$
 $\approx 272 + 1210 + 12 - 21 + 1111 - 201$
= $2383 \approx 2385$
492. 2; ? = $13369.571 - 97215.372 + 679871.5 + 34.21 - 57918.7 - 322.67$
= $13370 + 679872 + 34 - 97215 - 57919 - 333 = 693276 - 155467 = 537809 \approx 537810$
493. 2; $\sqrt{5041} \times 35.5 + \sqrt{290} \times 3.7 - \sqrt{4489} \times \sqrt{81} \times 0.001 + 37.0571$
= $71 \times 35.5 + 17 \times 3.7 - 67 \times 9 \times 0.001 + 37.0571$
 $\approx 2520.5 + 63 - 0.6 + 37 \approx 2619.4 \approx 2620$
494. 5; ? = $2222 \times 11.05 + 101 \times 201 + 35.079 \times 88.571$

+
$$3434.62 - 13.82$$

= $2222 \times 11 + 101 \times 201 + 35 \times 88.5 + 3434.6 - 13.8$
 $\approx 24442 + 20301 + 3097.5 + 3434.6 - 13.8$
= $51261.3 \approx 51261$
 2.72×847 3 000 33×351 13

$$495. \ \ 4; \ ? = \frac{72 \times 847}{100} + \frac{3}{41} + 929 - \frac{33 \times 351}{100} + \frac{13}{37}$$

$$= \frac{659}{612 + 68 - 116 + 232 \approx 796 = 795}$$

$$(12.8 \times 88 - 16.4 \times 55.5) \times 100$$

$$= \frac{222 \times 222}{48} \times \frac{16}{24} = 684$$

$$= \frac{222 \times 222}{48} \times \frac{16}{24} = 684$$

496. 4; ? =
$$\frac{(12.8 \times 88 - 16.4 \times 55.5) \times 100}{20}$$
= (1126.4 - 910.2) × 5 = 216.2 × 5 = 1081

or,
$$87 - 38 = \frac{872.2}{?}$$

or,
$$? = \frac{872.2}{49} = 17.8$$

497. 2; $\sqrt{7569} - \sqrt{1444} = 872.2 \div ?$

498. 4;
$$(13^3)^{\frac{2}{3}} \div (13^4)^{\frac{3}{4}} \times ? = (\sqrt{13})^5$$

or, $13^2 \div 13^3 \times ? = (\sqrt{13})^5$
or, $(13)^{-1} \times ? = (\sqrt{13})^5$

or,
$$? = 13 \times (\sqrt{13})^5 = (\sqrt{13})^7$$

$$499. \ \ 3; \ ? = \frac{12.5 \times 68544}{100} \times \frac{23 \times 33 \times 43}{7 \times 17 \times 27}$$
$$= \frac{8568 \times 23 \times 11 \times 43}{7 \times 9 \times 17} = 87032$$

500. 2; (?)² =
$$\sqrt{384 \times 864}$$
 = $\sqrt{64 \times 6 \times 144 \times 6}$
= $\sqrt{64 \times 36 \times 144}$
or, (?)² = 8 × 6 × 12 = 576
 \therefore ? = 24

501. 5;
$$? = \sqrt[3]{110590} = \sqrt[3]{48 \times 48 \times 48} = 48$$

502. 2; $? = (3842 \div 34) \times 3 = 113 \times 3$

$$= 339 \approx 340$$
503. 1; $? = \sqrt[3]{13820} \times \sqrt{21600} \div 55.959$

 $\approx (24 \times 147) \div 56 = 63$

$$504. \ \ 5; \ ? = \frac{104980}{648 \times 18} \approx 9$$

or,
$$? = \frac{38.5}{5.25} \times 12 - 4 = 88 - 4 = 84$$

507. 5;
$$(?)^2 + (79)^2 = (172)^2 - (88)^2 - 8203$$

or, $?^2 = (172 + 88) (172 - 88) - 8203 - (79)^2$
= 260 × 84 - 8203 - 6241
= 21840 - 8203 - 6241 = 7396
 $\therefore ? = \sqrt{7396} = 86$

508. 3; ? =
$$[(222)^2 \div 48 \times 16] \div 24$$

= $\frac{222 \times 222}{48} \times \frac{16}{24} = 684.5$

510. 5;
$$416 \times ? \times 8 = 59904$$

$$\therefore ? = \frac{59904}{416 \times 8} = 18$$

$$511. \ 4; (1513)^2 = ? \times 3294$$

$$\therefore ? = \frac{1513 \times 1513}{3297} = 694.95 \approx 695$$

512. 2; ? = (8531 + 6307 + 1093) ÷ (501 + 724 + 396)
=
$$\frac{15931}{1621}$$
 = 9.83 ≈ 10

$$=\frac{6.82\times782}{856}=\frac{682\times8}{856}=6.23\approx6$$

514. 2:
$$2 = \sqrt{197} + \sqrt{365} = 14 + 19 = 33$$

514. 2;
$$? = \sqrt{197} + \sqrt{365} = 14 + 19 = 33$$

515. 5; $? = (54 \times 154) \div (34 \times 134) = 8316 \div 4556 \approx 1.82 \approx 2$

516. 2;
$$5016 \times 1001 - 333 \times 77 + 22 = ? \times 11$$

or, $5021016 - 25641 + 22 = ? \times 11$

or
$$? = \frac{4995397}{11} = 454127$$

517. 3;
$$? = (13\sqrt{6} + 17\sqrt{6}) \times (12\sqrt{6} - 9\sqrt{6}) - (11)^2 + (4)^2$$

$$= {\sqrt{6}(13 + 17)} \times {\sqrt{6}(12 - 9)} - 121 + 16$$

$$= 30\sqrt{6} \times 3\sqrt{6} - 121 + 16$$

$$= (90 \times 6) - 121 + 16 = 435$$
518. 4; $? = (7777 \div 70) + (1250 \div 25) + (972 \div 27) + 2531 - 741$

$$= 111.1 + 50 + 36 + 1790 = 1987.1$$
519. 4; $\sqrt{30276} \times \sqrt{625} - (97)^2 + \sqrt{9604} + 4410 = ? - 2407$
or, $174 \times 25 - 9409 + 98 + 4410 = ? ? - 2401$
or, $4350 - 9409 + 98 + 4410 + 2401 = ?$
or, $? = 1850$

$$= (90 \times 6) - 121 + 16 = 435$$
518. 4; ? = (7777 ÷ 70) + (1250 ÷ 25) + (972 ÷ 27) + 2531 - 741 = 111.1 + 50 + 36 + 1790 = 1987.1

519. 4; $\sqrt{30276} \times \sqrt{625} - (97)^2 + \sqrt{9604} + 4410 = ? - 2401$ or, $174 \times 25 - 9409 + 98 + 4410 = ? - 2401$ or, $4350 - 9409 + 98 + 4410 + 2401 = ?$ or, ? = 1850

520. 5; $37\frac{18}{23} + 174\frac{19}{23} - 87\frac{15}{23} = ?$
or, $37 + 174 - 87 + \left(\frac{18}{23} + \frac{19}{23} - \frac{15}{23}\right)$

$$= 124 + \left(\frac{22}{23}\right) = 124\frac{22}{23}$$

521. 4; ? =
$$79352 \div 123 \times 35 + \sqrt{78}$$

= $645.13 \times 35 + \sqrt{78}$
= $22579.5 + 8.8 = 22588.3 \approx 22587$
522. 1;
? = $(704.969)^{\frac{1}{3}} \times \sqrt{4489} + (3502 \div 17) - \sqrt{2704}$
= $8.9 \times 67 + 206 - 52 = 750.3 \approx 750$
523. 3; ? = $\frac{13}{17}$ of $5352.541 - \frac{7}{13}$ of $970.524 + \frac{12}{23}$ of 11570.97
 $\approx \frac{13}{17} \times 5353 - \frac{7}{13} \times 971 + \frac{12}{23} \times 11571$
 $\approx 4093 - 522 + 6037 \approx 9608$
524. 5; $79540 \times \frac{72}{100} - \frac{69}{100} \times 5423 + \frac{29}{100} \times 720$
= $457268.8 - 3741.87 + 208.8$
= $53735.8 \approx 53735$
525. 3; ? = $4297.52 + 1352.71 \times 464.52 + 7389 \div 221.5$

 $\approx 4298 + 629145 + 33.3 = 633476$