Answer the questions

(1) Write twenty-six-hundredths as a decimal fraction.

(2) What is the place value of 7 in 8913.4726?

(3) What is the place value of 1 in 83647.1502?

(4) What number do you get by adding 7 Tenths and 17 Ten thousandths together to 4 Ones?

(5) Write eight and four-tenths as a decimal fraction.

(6) Write the answer in short form (decimal number):

\[
4000 + 800 + 90 + 2 + \frac{2}{10} + \frac{4}{100} + \frac{2}{1000}
\]

(7) Convert the fraction \( \frac{14}{7} \) to its decimal number.

(8) What is the value of the following expression as a decimal number?

\[
\text{A)} \quad 100 + 50 + 9 + \frac{9}{10} + \frac{7}{100} + \frac{1}{1000}
\]

\[
\text{B)} \quad 700 + 10 + 1 + \frac{9}{10} + \frac{5}{100} + \frac{4}{1000}
\]

(9) What is the smallest number that should be added to 20.01 to give a prime number?

(10) Convert 30.354 into an improper fraction. (Simplification is not required).

(11) Write the decimal value of these fractions:

\[
\text{A)} \quad \frac{7}{10} \quad \text{B)} \quad \frac{5}{10}
\]

\[
\text{C)} \quad \frac{9}{10} \quad \text{D)} \quad 2\frac{2}{10}
\]

(12) Write the equivalent fractions for these decimal numbers:

\[
\text{A)} \quad 4.4 \quad \text{B)} \quad 2.4
\]

\[
\text{C)} \quad 0.4 \quad \text{D)} \quad 0.2
\]
Choose correct answer(s) from the given choices

(13) \( \frac{2}{100} \) is read as:

a. Two hundreds  b. Two hundredths

c. Two ones      d. Two tens

(14) Solve the following:

A) \( \_ \_ \_ \) + 85.53 = 681.26

a. 594.04  b. 595.73

c. 595.73  d. 597.04

B) 568.72 - 472.16 = \_ \_ \_ 

a. 95.75  b. 96.42

c. 96.56  d. 96.59

C) \_ \_ \_ \) + 32.24 = 375.23

a. 342.99  b. 342.84

c. 341.59  d. 345.41

D) \_ \_ \_ \_ \_ = 436.01

a. 399.75  b. 410.3

c. 401.98  d. 400.37

(15) Fill in the blanks:

0.976 = \_ \_ \_ \_ \_ tenths + 7 hundredths + \_ \_ \_ \_ \_ thousandths

a. 9, 6  b. 9, 7

c. 10, 6  d. 0, 6
Answers

(1) 0.26

Step 1
As the number name given in the question is twenty-six-hundredths. We know that hundredths can be written as \( \frac{1}{100} \). So, we can write twenty-six-hundredths as \( \frac{26}{100} \).

Step 2
Now, we have to convert \( \frac{26}{100} \) into the decimal fraction form.

\( \frac{26}{100} \) can be written as 0.26.

Step 3
Hence, 0.26 is the required decimal fraction for twenty-six-hundredths.

(2) 7 Hundredths

Step 1
Let us draw the place value chart to find where the digit 7 is placed in the given number: 89134726

<table>
<thead>
<tr>
<th>Lakhs</th>
<th>Thousands</th>
<th>Ones</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
<th>Ten thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>L</td>
<td>TTH</td>
<td>TH</td>
<td>H</td>
<td>T</td>
<td>O</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>1</td>
<td>3 .</td>
<td>4</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

Legend:

Step 2
From the above table, we observe that 7 is placed under the Hundredths place.

Step 3
Hence, the place value of 7 in 8913.4726 is 7 Hundredths.
Step 1
Let us draw the place value chart to find where the digit 1 is placed in the given number:
83647.1502

| Lakhs| Thousands| Ones| Tenths| Hundredths| Thousandths| Ten thousandths|
| TL| L| TTH| TH| H| T| O| .| (1/10)| (1/100)| (1/1000)| (1/10000)|
| 8| 3| 6| 4| 7| 1| 5| 0| 2|

**Legend:**

Step 2
From the above table, we observe that 1 is placed under the Tenths place.

Step 3
Hence, the place value of 1 in 83647.1502 is 1 Tenths.
### Step 1
Let us first convert the number names into numerals:
- 7 Tenths = $7 \div 10 = 0.7$
- 17 Ten thousandths = $17 \div 10000 = 0.0017$
- 4 Ones = $4 \times 1 = 4$

### Step 2
Let us first add the decimal numbers as below:

<table>
<thead>
<tr>
<th>Lakhs</th>
<th>Thousands</th>
<th>Ones</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
<th>Ten thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>L</td>
<td>TTH</td>
<td>TH</td>
<td>H</td>
<td>T</td>
<td>O</td>
</tr>
<tr>
<td>+</td>
<td>0 . 7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+</td>
<td>0 . 0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0 . 7</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**

### Step 3
Let us now add the decimal numbers to the whole number:

<table>
<thead>
<tr>
<th>Lakhs</th>
<th>Thousands</th>
<th>Ones</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
<th>Ten thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>L</td>
<td>TTH</td>
<td>TH</td>
<td>H</td>
<td>T</td>
<td>O</td>
</tr>
<tr>
<td>+</td>
<td>0 . 7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>4 . 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4 . 7</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Step 4
Therefore, by adding 7 Tenths and 17 Ten thousandths together to 4 Ones, we get **4.7017**.
Step 1
The number name given in the question is eight and four-tenths. We know that tenths can be represented as $\frac{1}{10}$. So, we can write eight and four-tenths as $8$ and $\frac{4}{10}$ i.e., $8 \frac{4}{10}$.

Step 2
Now, let us convert the mixed fraction into an improper fraction.

$$8 \frac{4}{10} = \frac{8 \times 10 + 4}{10} = \frac{84}{10}$$

Step 3
Now, we have to write down the above fraction into the decimal fraction form.

We know, $\frac{1}{10}$ can be written as 0.1.

Therefore, $\frac{84}{10}$ can be written as 8.4.

Step 4
Hence, $8.4$ is the required decimal fraction.

---

Step 1
We have the place values of all the digits given in the question. To form a number, we’ll need to add all of them.

Step 2
First let us convert the given fractions into their decimal forms:

$$\frac{2}{10} = 0.2, \quad \frac{4}{100} = 0.04, \quad \frac{2}{1000} = 0.002.$$  

$= 0.002$.

Step 3

$$4000 + 800 + 90 + 2 + 0.2 + 0.04 + 0.002 = 4892.242.$$  

Step 4
Hence the short form of the above given number is 4892.242.
Step 1

$\frac{7}{100}$ is a mixed fraction. A mixed fraction is a combination of a whole number and a proper fraction.

Step 2

In the mixed fraction $14 \frac{7}{100}$, 14 is a whole number and $\frac{7}{100}$ is a proper fraction.

Step 3

To convert the mixed fraction into its decimal form, we shall first convert the proper fraction $\frac{7}{100}$ into a decimal number and add it to the whole number 14.

Step 4

The proper fraction $\frac{7}{100}$ can be written as 0.07 in its decimal form. Adding the whole number 14 to the decimal number 0.07, we get 14.07.

Step 5

Therefore, the correct answer is 14.07.
Step 1
Let us first add the first three numbers which are not fractions: $100 + 50 + 9 = 159$

Step 2
Let us next convert the last three fractions to decimals:

$$\frac{9}{10} = 0.9$$

$$\frac{7}{100} = 0.07$$

$$\frac{1}{1000} = 0.001$$

Step 3
Let's use the place value chart to add the whole numbers and the decimal numbers as:

<table>
<thead>
<tr>
<th>Ones</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>T</td>
<td>O</td>
<td>(1/10)</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

Legend:
H - Hundreds, T - Tens, O - Ones.

Step 4
Hence, the answer is $159.971$. 
Step 1
Let us first add the first three numbers which are not fractions: \( 700 + 10 + 1 = 711 \)

Step 2
Let us next convert the last three fractions to decimals:
\[
\begin{align*}
\frac{9}{10} &= 0.9 \\
\frac{5}{100} &= 0.05 \\
\frac{4}{1000} &= 0.004
\end{align*}
\]

Step 3
Let's use the place value chart to add the whole numbers and the decimal numbers as:

<table>
<thead>
<tr>
<th>Ones</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>T</td>
<td>O</td>
<td>(1/10)</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total 7 1 1 . 9 5 4

Legend:
H - Hundreds, T - Tens, O - Ones.

Step 4
Hence, the answer is **711.954**.

(9) 2.99

Step 1
We know that 20.01 is not a prime number. On close observation, we find that the nearest prime number higher than 20.01 is 23.

Step 2
Therefore, the smallest number that should be added to 20.01 to make it prime = 23 - 20.01 = **2.99**.
Step 1
In an improper fraction, the denominator is less than the numerator. Improper fractions have a value more than 1.

Step 2
Let us convert the decimal number 30.354 into an improper fraction. Since the decimal point is placed just before the thousandths place of the number, the number 30.354 can be converted into an improper fraction as \( \frac{30354}{1000} \).

A) 0.7

Step 1
The denominator in the fraction \( \frac{7}{10} \) is 10 which has 1 zero.

Step 2
One zero suggests that we should place the decimal point in the left of the first digit (units'digit) of the numerator.

Step 3
Therefore, the decimal value of \( \frac{7}{10} \) will be 0.7.
B) 19.5

Step 1
Let us convert the given mixed fraction into an improper fraction:
\[
19 \frac{5}{10} = \frac{195}{10}
\]

Step 2
The denominator in the fraction \(\frac{195}{10}\) is 10 which has 1 zero.

Step 3
One zero suggests that we should place the decimal point in the left of the first digit (units' digit) of the numerator.

Step 4
Therefore, the decimal value of \(\frac{195}{10}\) will be 19.5.

C) 0.9

Step 1
The denominator in the fraction \(\frac{9}{10}\) is 10 which has 1 zero.

Step 2
One zero suggests that we should place the decimal point in the left of the first digit (units' digit) of the numerator.

Step 3
Therefore, the decimal value of \(\frac{9}{10}\) will be 0.9.
D) 2.2

Step 1
Let us convert the given mixed fraction into an improper fraction:
\[
2 \frac{2}{10} = \frac{22}{10}
\]

Step 2
The denominator in the fraction \( \frac{22}{10} \) is 10 which has 1 zero.

Step 3
One zero suggests that we should place the decimal point in the left of the first digit (units'digit) of the numerator.

Step 4
Therefore, the decimal value of \( \frac{22}{10} \) will be 2.2.

(12) A) 4 \( \frac{4}{10} \)

Step 1
We can see that there is one digit to the right of the decimal point in the given number.

Step 2
To express the number in its fraction form, we will remove the given decimal point. The number, thus formed, becomes the numerator while 10 becomes the denominator.

Step 3
Thus the equivalent fraction is \( \frac{44}{10} \), or \( 4 \frac{4}{10} \), when expressed as a mixed fraction.
B) \[ \frac{4}{10} \]

Step 1
We can see that there is one digit to the right of the decimal point in the given number.

Step 2
To express the number in its fraction form, we will remove the given decimal point. The number, thus formed, becomes the numerator while 10 becomes the denominator.

Step 3
Thus the equivalent fraction is \( \frac{24}{10} \), or \( \frac{4}{10} \), when expressed as a mixed fraction.

C) \[ \frac{4}{10} \]

Step 1
We can see that there is one digit to the right of the decimal point in the given number.

Step 2
To express the number in its fraction form, we will remove the given decimal point. The number, thus formed, becomes the numerator while 10 becomes the denominator.

Step 3
Thus the equivalent fraction is \( \frac{4}{10} \).

D) \[ \frac{2}{10} \]

Step 1
We can see that there is one digit to the right of the decimal point in the given number.

Step 2
To express the number in its fraction form, we will remove the given decimal point. The number, thus formed, becomes the numerator while 10 becomes the denominator.

Step 3
Thus the equivalent fraction is \( \frac{2}{10} \).
(13) b. Two hundredths

Step 1
Converting the given fraction into decimal form:

\[
\frac{2}{100} = 0.02
\]

Step 2
Let us now place the decimal number 0.02 in the decimal place value chart.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Decimal point</th>
<th>Tenths</th>
<th>Hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Step 3
Therefore, 0.02 is read as Two hundredths.

Step 4
Hence, option b is the correct answer.

(14) A) c. 595.73

Step 1
Given, _____ + 85.53 = 681.26
Let us assume the missing number be \( x \).
Therefore, \( x + 85.53 = 681.26 \)
or \( x = 681.26 - 85.53 \)

Step 2
Now, we have to subtract 85.53 from 681.26.

\[
\begin{array}{c}
6 8 1 . 2 6 \\
- 8 5 . 5 3 \\
\hline
5 9 5 . 7 3
\end{array}
\]

Therefore, \( x = 595.73 \)

Step 3
Thus, \( 595.73 + 85.53 = 681.26 \)
B) c. 96.56

Step 1
Given, 568.72 - 472.16 = _____
We have to subtract 472.16 from 568.72.

\[
\begin{array}{r}
5 & 6 & 8 & . & 7 & 2 \\
- & 4 & 7 & 2 & . & 1 & 6 \\
\hline
9 & 6 & . & 5 & 6 \\
\end{array}
\]

Step 2
Therefore, 568.72 - 472.16 = 96.56

C) a. 342.99

Step 1
Given, _____ + 32.24 = 375.23
Let us assume the missing number be \( x \).
Therefore, \( x + 32.24 = 375.23 \)
or \( x = 375.23 - 32.24 \)

Step 2
Now, we have to subtract 32.24 from 375.23.

\[
\begin{array}{r}
3 & 7 & 5 & . & 2 & 3 \\
- & 3 & 2 & . & 2 & 4 \\
\hline
3 & 4 & 2 & . & 9 & 9 \\
\end{array}
\]

Therefore, \( x = 342.99 \)

Step 3
Thus, 342.99 + 32.24 = 375.23
Step 1
Given, _____ + 35.64 = 436.01
Let us assume the missing number be x.
Therefore, \( x + 35.64 = 436.01 \)
or \( x = 436.01 - 35.64 \)

Step 2
Now, we have to subtract 35.64 from 436.01.

\[
\begin{array}{cccc}
4 & 3 & 6 & .01 \\
-3 & 5 & .64 \\
\hline
4 & 0 & 0 & .37
\end{array}
\]

Thus, \( x = 400.37 \)

Step 3
Thus, \( 400.37 + 35.64 = 436.01 \)

(15) a. 9, 6

Step 1
Let us arrange the decimal number 0.976 in the place value chart.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Decimal point</th>
<th>Tenths</th>
<th>Hundredths</th>
<th>Thousandths</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 2
Clearly, \( 0.976 = 9 \text{ tenths} + 7 \text{ hundredths} + 6 \text{ thousandths} \).

Step 3
Hence, option a is the correct answer.