NCERT QUESTIONS WITH SOLUTIONS

EXERCISE : 1.1

1. Fill in the blanks:

(a) 1 lakh =_____ten thousand.

(b) 1 million =_____ hundred thousand.

(c) 1 crore =_____ ten lakh.

(d) 1 crore =_____ million.

(e) 1 million = _____ lakh.

Sol. (a) 1 lakh = <u>10</u> ten thousand.

(1 lakh = 1,00, 000 and ten thousand = 10,000)

(b) 1 million = <u>10</u> hundred thousand.

(1 million = 1,000,000 and 1 hundred thousand = 1, 00,000)

(c) 1 crore = <u>10</u> ten lakhs

(1 crore = 1,00,00,000 and Ten lakh = 10,00,000)

(d) 1 crore = <u>10</u> million

(1 crore = 1,00,00,000 and 1 million = 1,000,000)

(e) 1 million = <u>10</u> lakh

(1 million = 1,000,000 and 1 lakh = 1,00,000)

2. Place commas correctly and write the numerals.

(a) Seventy-three lakhs seventy-five thousand three hundred seven.

(b) Nine crore five lakh forty-one.

(c) Seven crores fifty-two lakh twenty -one thousand three hundred two.

(d) Fifty-eight million four hundred twenty-three thousand two hundred two.

(e) Twenty-three lakh thirty thousand ten.

Sol. (a) 73,75,307   (b) 9,05,00,041

(c) 7,52,21,302   (d) 58,423,202

(e) 23,30,010

3. Insert commas suitably and write the names according to Indian System of Numeration.

(a) 87595762   (b) 8546283

(c) 99900046   (d) 98432701

Sol. (a) 8,75,95,762

Eight crores seventy-five lakh ninety-five thousand seven hundred sixty-two.

(b) 85,46,283

Eighty-five lakhs forty-six thousand two hundred eighty-three.

(c) 9,99,00,046

Nine crores ninety-nine lakh forty-six.

(d) 9,84,32,701

Nine crores eighty-four lakh thirty-two thousand seven hundred one

4. Insert commas suitably and write the names according to International System of Numeration.

(a) 78921092   (b) 7452283

(c) 99985102   (d) 48049831

Sol. (a) 78,921,092

Seventy-eight million nine hundred twenty-one thousand ninety-two.

(b) 7,452,283

Seven million four hundred fifty-two thousand two hundred eighty-three.

(c) 99,985,102

Ninety-nine million nine hundred eighty-five thousand one hundred two.

(d) 48,049,831

Forty-eight million forty-nine thousand eight hundred thirty-one.

EXERCISE : 1.2

1. A book exhibition was held for four days in a school. The number of tickets sold at the counter on the first, second, third and final day was respectively 1094, 1812, 2050 and 2751. Find the total number of tickets sold on all the four days.

Sol. Tickets sold on 1st day = 1094

Tickets sold on 2nd day = 1812

Tickets sold on 3rd day = 2050

Tickets sold on 4th day = 2751

Total tickets sold = 1094 + 1812 + 2050 + 2751

```
  1094
  1812
  2050
 +2751
 ─────
  7707
```

∴ Total tickets sold = 7,707

2. Shekhar is a famous cricket player. He has so far scored 6980 runs in test matches. He wishes to complete 10,000 runs. How many more runs does he need?

Sol. Runs scored so far = 6980

Runs Shekhar wants to score = 10,000

More runs required = 10,000 – 6980

```
  10000
 – 6980
 ─────
  3020
```

∴ Shekhar requires 3,020 more runs.

3. In an election, the successful candidate registered 5,77,500 votes and his nearest rival secured 3,48,700 votes. By what margin did the successful candidate win the election ?

Sol. Votes secured by successful candidate = 5,77,500

Votes secured by rival = 3,48,700

Margin = 5,77,500 – 3,48,700

```
  577500
 –348700
 ──────
  228800
```

∴ Margin = 2,28,800 votes

4. Kirti bookstore sold books worth Rs 2,85,891 in the first week of June and books worth Rs 4,00,768 in the second week of the month. How much was the sale for the two weeks together? In which week was the sale greater and by how much?

Sol. Value of Books sold in 1st week = Rs 2,85,891

Value of books sold in 2nd week = Rs 4,00,768

Total sale = Sale in 1st week + Sale in 2nd week

= 2,85,891 + 4,00,768

```
  285891
 +400768
 ──────
  686659
```

The sale for the two weeks together was 6,86,659.

Since 4,00,768 > 2,85,891, sale in 2nd week was greater than 1st week.

```
  400768
 –285891
 ──────
  114877
```

∴ The sale in 2nd week was larger than the sale in 1st week by Rs 1,14,877.

5. Find the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once.

Sol. Greatest number = 76432

Smallest number = 23467

Difference = 76432 – 23467

```
  76432
 –23467
 ─────
  52965
```

Therefore, the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once is 52,965.

6. A machine, on an average, manufactures 2,825 screws a day. How many screws did it produce in the month of January 2006?

Sol. Screws produced in one day = 2,825

Days in January = 31

Screws produced in 31 days = 2825 × 31

```
    2825
  ×   31
  ──────
    2825
+ 84750
  ──────
  87575
```

Therefore, screws produced during Jan, 06 = 87,575

7. A merchant had Rs. 78,592 with him. He placed an order for purchasing 40 radio sets at Rs. 1200 each. How much money will remain with him after the purchase?

Sol. Cost of one radio set = Rs. 1200

Cost of 40 radio sets = 1200 × 40

= Rs. 48000

Money with Merchant = Rs. 78,592

Money spent = Rs. 48,000

Money left = 78592 – 48000

```
    78592
  – 48000
  ───────
    30592
```

Therefore, Rs. 30,592 will remain with him after the purchase.

8. A student multiplied 7236 by 65 instead of multiplying by 56. By how much was his answer greater than the correct answer?

Sol. Difference between 65 and 56 = 9

Difference in the answer = 7236 × 9

```
    7236
  ×    9
  ──────
   65124
```

Therefore, his answer was greater than the correct answer by 65,124.

9. To stitch a shirt, 2m 15 cm cloth is needed. Out of 40 m cloth, how many shirts can be stitched and how much cloth will remain?

Sol. 2 m 15 cm = 215 cm (1 m = 100 cm)

40 m = 40 × 100 = 4000 cm

Cloth required for one shirt = 215 cm

Number of shirts that can be stitched out of 4000 cm = 4000 ÷ 215

```
          18
   215 ) 4000
        −215
        ─────
        1850
       −1720
       ──────
         130
```

Therefore, 18 shirts can be made. 130 cm, i.e. 1 m 30 cm, cloth will remain.

10. Medicine is packed in boxes, each weighing 4 kg 500 g. How many such boxes can be loaded in a van which cannot carry beyond 800 kg?

Sol. 1 kg = 1000 g

4 kg 500 g = 4500 g

800 kg = 800 × 1000 = 800000 g

Number of boxes that can be loaded in the van = 800000 ÷ 4500

```
            177
  4500 ) 800000
        −4500
        ──────
         35000
        −31500
        ──────
         35000
        −31500
        ──────
          3500
```

Hence, 177 boxes at maximum can be loaded in the van.

11. The distance between the school and the house of a student is 1 km 875 m. Every day, she walks both ways. Find the total distance covered by her in six days.

Sol. Distance between school and house = 1 km 875 m

Now, 1 km = 1000 m

1 km 875 m = 1875 m

Distance covered each day = 1875 × 2 = 3750 m

Distance covered in 6 days = 3750 × 6

```
  3750
×    6
─────
 22500
```

Therefore, distance covered in 6 days = 22,500 m = 22.5 km or 22 km 500 m

12. A vessel has 4 litres and 500 ml of curd. In how many glasses, each of 25 ml capacity, can it be filled?

Sol. Capacity of vessel = 4ℓ 500 ml

= 4500 ml (1ℓ = 1000 ml)

Capacity of a glass = 25 ml
Number of glasses that can be filled = 4500 ÷ 25

```
        180
    25) 4500
       −25
       ────
        200
       −200
       ────
         ×
```

∴ 180 glasses can be filled.

EXERCISE : 1.3

1. Estimate each of the following using general rule:
(a) 730 + 998   (b) 796 – 314
(c) 12,904 + 2,888   (d) 28,292 – 21,496

Sol. (a) 730 + 998

By rounding off to hundreds, 730 rounds off to 700 and 998 rounds off to 1000.

```
   700
+ 1000
─────
  1700
```

(b) 796 – 314

By rounding off to hundreds, 796 rounds off to 800 and 314 rounds off to 300.

```
   800
 −300
 ────
   500
```

(c) 12904 + 2822

By rounding off to thousands, 12904 rounds off to 13000 and 2822 rounds off to 3000.

```
  13000
+ 3000
─────
  16000
```

(d) 28,292 – 21,496

By rounding off to nearest thousands, 28296 rounds off to 28000 and 21496 rounds off to 21000.

```
  28000
−21000
─────
   7000
```

2. Give a rough estimate (by rounding off to nearest hundreds) and also a closer estimate (by rounding off to nearest tens):
(a) 439 + 334 + 4,317
(b) 1,08,734 – 47,599
(c) 8325 – 491
(d) 4,89,348 – 48,365

Sol. (a) 439 + 334 + 4317

Rounding off to nearest hundreds, 439, 334, and 4317 may be rounded off to 400, 300, and 4300 respectively.

```
   400
   300
+ 4300
─────
  5000
```

Rounding off to nearest tens, 439, 334, and 4317 may be rounded off to 440, 330, and 4320 respectively.

```
   440
   330
+ 4320
─────
  5090
```

(b) 1,08,734 – 47,599

Rounding off to hundreds 1,08,734 and 47,599 may be rounded off to 1,08,700 and 47,600 respectively.

$$\begin{array}{r} 108700 \\ -47600 \\ \hline 61100 \end{array}$$

Rounding off to nearest tens 1,08,734 and 47,599 may be rounded off to 1,08,730 and 47,600 respectively.

$$\begin{array}{r} 108730 \\ -47600 \\ \hline 61130 \end{array}$$

(c) 8325 – 491

Rounding off to hundreds, 8325 and 491 may be rounded off to 8300 and 500 respectively.

$$\begin{array}{r} 8300 \\ -500 \\ \hline 7800 \end{array}$$

Rounding off to tens, 8325 and 491 may be rounded off to 8330 and 490 respectively.

$$\begin{array}{r} 8330 \\ -490 \\ \hline 7840 \end{array}$$

(d) 4,89,348 – 48,365

Rounding off to hundreds, 489348 and 48365 may be rounded off to 489300 and 48400 respectively.

$$\begin{array}{r} 489300 \\ -48400 \\ \hline 440900 \end{array}$$

Rounding off to tens, 489348 and 48365 may be rounded off to 489350 and 48370 respectively.

$$\begin{array}{r} 489350 \\ -48370 \\ \hline 440980 \end{array}$$

3. Estimate the following products using general rule:

(a) 578 × 161   (b) 5281 × 3491

(c) 1291 × 592   (d) 9250 × 29

Sol. (a) 578 × 161

Rounding off by general rule, 578 and 161 may be rounded off to 600 and 200 respectively.

$$\begin{array}{r} 600 \\ \times 200 \\ \hline 120000 \end{array}$$

(b) 5281 × 3491

Rounding off by general rule, 5281 and 3491 may be rounded off to 5000 and 3500 respectively.

$$\begin{array}{r} 5000 \\ \times 3500 \\ \hline 17500000 \end{array}$$

(c) 1291 × 592

Rounding off by general rule, 1291 and 592 may be rounded off to 1300 and 600 respectively.

$$\begin{array}{r} 1300 \\ \times 600 \\ \hline 780000 \end{array}$$

(d) 9250 × 29

Rounding off by general rule, 9250 and 29 may be rounded off to 9000 and 30 respectively.

$$\begin{array}{r} 9000 \\ \times 30 \\ \hline 270000 \end{array}$$