

Ch-5 OPERATION ON LARGE NUMBERS

$$\begin{array}{r} 1. \text{ a) } 8143211 \\ + 942879 \\ + 4511377 \\ \hline 13597467 \\ = 1,35,97,467 \end{array}$$

$$\begin{array}{r} \text{c) } 75657 \\ 3817625 \\ + 945843 \\ 24000 \\ \hline 4863125 \\ = 48,63,125 \end{array}$$

$$\begin{array}{r} \text{e) } 250018125 \\ + 188324289 \\ + 81928333 \\ \hline 520240747 \\ = 52,02,40,747 \end{array}$$

$$\begin{array}{r} 2. \text{ a) } 2818417 \\ + 4335318 \\ + 1614408 \\ \hline 8768143 \end{array}$$

$$\begin{array}{r} \text{c) } 662470242 \\ + 77818478 \\ 161127345 \\ \hline 90,14,16,065 \end{array}$$

$$\begin{array}{r} \text{d) } 759248705 \\ + 200837800 \\ \hline 96,00,86,505 \end{array}$$

$$\begin{array}{r} 3. \text{ a) } 145875215 \\ + 211638470 \\ 386615575 \\ \hline 74,41,29,260 \end{array}$$

$$\begin{array}{r} \text{c) } 55000000 \\ 60000000 \\ + 75000 \\ 9000 \\ \hline 6,10,84,000 \end{array}$$

= Six Crore Ten Lakh Eighty four Thousand.

Seventy four Crore forty one Lakh twenty nine thousand Two hundred sixty.

$$\begin{array}{r} 4. \text{ a) } 4956721 \\ - 2034567 \\ \hline 29,22,154 \end{array}$$

$$\begin{array}{r} \text{d) } 3352118 \\ - 2575500 \\ \hline 7,76,618 \end{array}$$

$$\begin{array}{r} \text{g) } 61624715 \\ - 42874366 \\ \hline 1,87,50,349 \end{array}$$

$$\begin{array}{r} \text{ky} 221085648 \\ - 182592786 \\ \hline 3,84,92,862 \\ = 3,84,92,862 \end{array}$$

$$\begin{array}{r} 5) \quad 40\,00\,000 \\ - \quad 27\,16\,426 \\ \hline 12\,83\,574 \end{array}$$

$$\begin{array}{r} 8) \quad 2,01,405 \\ - \quad 38\,615 \\ \hline 1,62,790 \\ = 1,62,790 \text{ should be added.} \end{array}$$

9) The sum of 3216575 and 1624683 is

$$\begin{array}{r} 3216575 \\ + \quad 1624683 \\ \hline 4841258 \end{array} \quad \begin{array}{r} 1,00,00,000 \\ - \quad 48,41,258 \\ \hline 51,58,742 \end{array} = 51,58,742 \text{ (Ans)}$$

11) The sum of :-

$$\begin{array}{r} 37265432 \\ + \quad 6856385 \\ \hline 4,41,21,817 \end{array} \quad \begin{array}{r} 550,00,000 \\ - \quad 441,21,817 \\ \hline 1,08,78,183 \end{array} = 1,08,78,183 \text{ should be added.}$$

$$\begin{array}{l} 12) \text{ a) } 1627615 - 248428 - 1075560 - 82942 \\ = 1627615 - (248428 + 1075560 + 82942) \end{array}$$

$$\begin{array}{r} \text{Step-I} \\ 1627615 \\ - \quad 248428 \\ + \quad 1075560 \\ + \quad 82942 \\ \hline 1406930 \end{array} \quad \begin{array}{r} \text{Step-II} \\ 1627615 \\ - \quad 1406930 \\ \hline 220685 \end{array}$$

$$\text{Ans:- } \underline{220,685}$$

$$\begin{array}{l} \text{c) } 75614 + 2318493 - 1880000 - 9474 \\ = (75614 + 2318493) - (1880000 + 9474) \end{array}$$

$$\begin{array}{r} \text{Step-I} \\ 2318493 \\ + \quad 75614 \\ \hline 2394107 \end{array} \quad \begin{array}{r} \text{Step-II} \\ 1880000 \\ + \quad 9474 \\ \hline 1889474 \end{array}$$

$$\begin{array}{r} \text{Step-III} \\ 2394107 \\ - \quad 1889474 \\ \hline 504633 \\ \text{Ans:- } \underline{5,04,633} \end{array}$$

$$\begin{aligned} 12 \quad & \Rightarrow 85800 - 3742450 + 4241158 - 6840 \\ & = (85800 + 4241158) - (3742450 + 6840) \end{aligned}$$

$$\begin{array}{r} \text{Step-I} \\ 4241158 \\ + 85800 \\ \hline 4326958 \end{array}$$

$$\begin{array}{r} \text{Step-II} \\ 3742450 \\ + 6840 \\ \hline 3749290 \end{array}$$

$$\begin{array}{r} \text{Step-III} \\ 4326958 \\ - 3749290 \\ \hline 577668 \end{array}$$

Ans:- 5,77,668.

$$\begin{aligned} 13 \quad & \text{Number of males} = 6,32,41,682 \\ & \text{Number of females} = 5,93,24,118 \\ & \text{Number of children} = + 1,82,345 \end{aligned}$$

$$\therefore \text{Total population} = \underline{12,27,48,145}$$

Ans:- Total population of the city = 12,27,48,145.

$$\begin{aligned} 16 \quad & \text{Money spent by Aman} = ₹ 3,25,46,786 \\ & \text{" " " Raj} = ₹ 5,78,91,234 \\ & \text{" " " Kavita} = ₹ 7,83,24,132 \end{aligned}$$

$$\therefore \text{Total money spent} = \underline{16,87,62,152}$$

Ans:- Money spent by all of them = ₹ 16,87,62,152.

$$\begin{aligned} 18 \quad & \text{Number of people visited in 2015} = 83,78,569 \\ & \text{In 2016, no. of people visited less} = - 8,46,374 \\ & \hline & 75,32,195 \end{aligned}$$

Ans:- 75,32,195 people visited in 2016.

19 Sales in 1st year = 9,35,486.
 Sales in 2nd year = 9,35,486 + 90,387 = 10,25,873
 Sales in 3rd year = 10,25,873 + 1,34,201 = 11,60,074

∴ Total sale in three years =

$$\begin{array}{r} 10,25,873 \\ + 11,60,074 \\ 9,35,486 \\ \hline \end{array}$$

$$\underline{31,21,433}$$

Ans:- Total sale proceeds in three years = 31,21,433.

20 The sum of two numbers = 89,852
 One of the number = 67,842
 ∴ The second number = $\underline{21,610}$

= 21,610. (Ans)

22 The smallest 9-digit number = 100 000 000
 " Largest 8- " " = $\underline{99 999 999}$

= 1 (Ans)

24 Present population = 60,48,991
 Population five years ago = 41,37,108
 $\underline{19,11,883}$

Ans:- Increase in population during the last five years
 = 19,11,883.

Ex-5(B)

1. a) 12×11

$$\begin{array}{r} 12 \\ \times 11 \\ \hline 12 \\ 12 \times \\ \hline 132 \end{array}$$

e) 16×16

$$\begin{array}{r} 16 \\ \times 16 \\ \hline 96 \\ 16 \times \\ \hline 256 \end{array}$$

g) 13×13

$$\begin{array}{r} 13 \\ \times 13 \\ \hline 39 \\ 13 \times \\ \hline 169 \end{array}$$

h) 25×1000
 $= 25000$

2.

a) 3776×15

$$\begin{array}{r} 3776 \\ \times 15 \\ \hline 18880 \\ 3776 \times \\ \hline 56640 \end{array}$$

c) 2154×124

$$\begin{array}{r} 2154 \\ \times 124 \\ \hline 8616 \\ 4308 \times \\ 2154 \times \times \\ \hline 267,096 \end{array}$$

e) 6324×762

$$\begin{array}{r} 6324 \\ \times 762 \\ \hline 12648 \\ 37944 \times \\ 44268 \times \times \\ \hline 48,18,888 \end{array}$$

h) 88600×323

$$\begin{array}{r} 88600 \\ \times 323 \\ \hline 265800 \\ 177200 \times \\ 265800 \times \times \\ \hline 28,61,7800 \end{array}$$

i) 334810×21

$$\begin{array}{r} 334810 \\ \times 21 \\ \hline 669620 \times \\ 70,31,010 \end{array}$$

3) Cost of 1 mobile phone = ₹ 15,675

∴ " " 215 " " = 15675

$$\begin{array}{r} 15675 \\ \times 215 \\ \hline 78375 \\ 15675 \times \\ 31350 \times \times \\ \hline 3370125 \end{array}$$

Ans:- Total money collected through the sale = ₹ 33,70,125

5) Capacity of 1 water tank = 15,680 l

∴ " " 125 " " = 15680

$$\begin{array}{r} 15680 \\ \times 125 \\ \hline 78400 \\ 31360 \times \\ 15680 \times \times \\ \hline 1960000 \end{array}$$

Ans:- Quantity of water in 125 tanks = 19,60,000 l

Ex-5(c)

1. a) $\frac{85400}{100} = Q-854 \quad R-00 \quad \frac{85400}{1000} = Q \rightarrow 85 \quad R \rightarrow 400$

$\frac{85400}{10000} = Q-8 \quad R-5400$

d) $\frac{96000}{100} = Q-960 \quad R-00 \quad \frac{96000}{1000} = Q-96 \quad R-000 \quad \frac{96000}{10000} = Q-9 \quad R-6000$

h) $\frac{9876450}{100} = Q-98764 \quad R-50 \quad \frac{9876450}{1000} = Q-9876 \quad R-450$

$\frac{9876450}{10000} = Q-987 \quad R-6450$

2. a) $62643 \div 56$

$$\begin{array}{r} 1118 \\ 56 \overline{) 62643} \\ \underline{56} \\ 66 \\ \underline{56} \\ 104 \\ \underline{56} \\ 483 \\ \underline{448} \\ 35 \end{array}$$

Q - 1118
R - 35

checking

Dividend = Divisor $\times$ Quotient + Remainder
 $= (1118 \times 56) + 35$
 $= 62608 + 35$
 $= \underline{62643}$

c) $5177365 \div 63$

$$\begin{array}{r} 82180 \\ 63 \overline{) 5177365} \\ \underline{504} \\ 137 \\ \underline{126} \\ 113 \\ \underline{63} \\ 506 \\ \underline{504} \\ 25 \end{array}$$

Q - 82180
R - 25

checking

$(82180 \times 63) + 25$
 $= 5177340 + 25$
 $= \underline{5177365}$

e) $51693 \div 483$

$$\begin{array}{r} 107 \\ 483 \overline{) 51693} \\ \underline{483} \\ 3393 \\ \underline{3381} \\ 12 \end{array}$$

Q = 107

R = 12

checking

$$(107 \times 483) + 12$$

$$= 51,681 + 12$$

$$= \underline{51693}$$

h) $5017383 \div 603$

$$\begin{array}{r} 8320 \\ 603 \overline{) 5017383} \\ \underline{4824} \\ 1933 \\ \underline{1809} \\ 1248 \\ \underline{1206} \\ 423 \end{array}$$

Q = 8320

R = 423

checking

$$(8320 \times 603) + 423$$

$$= 5016960 + 423$$

$$= \underline{5017383}$$

3

The product of two numbers = 31448895

One of the number = 6491

∴ The other number = $31448895 \div 6491$

$$\begin{array}{r} 4845 \\ 6491 \overline{) 31448895} \\ \underline{25964} \\ 54848 \\ \underline{51928} \\ 29209 \\ \underline{25964} \\ 32455 \\ \underline{32455} \\ \times \times \end{array}$$

Ans: The other number is 4845.

- 4) Total number of books a library has = 56700 books.
 No. of books in each shelf = 105 books.
 $\therefore$ No. of shelves = $56700 \div 105$.

$$\begin{array}{r} 540 \\ 105 \overline{) 56700} \\ \underline{525} \\ 420 \\ \underline{420} \\ 0 \\ 0 \\ \times \times \end{array}$$

Ans:- There are 540 shelves.

- 7) ₹ 1147500 was distributed among 255 students.
 $\therefore$ Each student got = $1147500 \div 255$

$$\begin{array}{r} 4500 \\ 255 \overline{) 1147500} \\ \underline{1020} \\ 1275 \\ \underline{1275} \\ \times \times 00 \\ \times \times \end{array}$$

Ans:- Scholarship given to each ~~sch~~ student
 = ₹ 4500.