Chapter—16

Playing with Numbers

1. If 35 *a* 6 is divisible by 3, where '*a*' is a digit, what are the possible values of '*a*'?
2. If 67 *y* 19 is a multiple of 9, where '*y*' is a digit what are the possible values of '*y*'?
3. If 15 *x* 2 is a multiple of 4, where '*x*' is a digit, what are the possible values of '*x*'?
4. If 67 *x* 19 is divisible by 11, where '*x*' is a digit, what are the possible values of '*x*'?
5. Find the values of letters in each of the following:

(i)
$$\begin{array}{r} B\ 9 \\ +\ 4\ A \\ \hline 6\ 5 \end{array}$$

(ii)
$$\begin{array}{r} A\ B \\ +\ 3\ 7 \\ \hline 6\ A \end{array}$$

(iii)
$$\begin{array}{r} 1\ 2\ A \\ +\ 6\ A\ B \\ \hline A\ 0\ 9 \end{array}$$

(iv)
$$\begin{array}{r} B\ A \\ \times\ B\ 3 \\ \hline 5\ 7\ A \end{array}$$

(v)
$$\begin{array}{r} A \\ \times\ 5 \\ \hline B\ A \end{array}$$

(vi)
$$\begin{array}{r} A\ B \\ \times\ B \\ \hline 9\ B \end{array}$$

6. State true or false:
   (i) If a number is divisible by 3 then it is also divisible by 9.
   (ii) If a number is divisible by 8 then it is also divisible by 4.
   (iii) If a number is divisible by 12 then it is divisible by both 3 and 4.
   (iv) If sum of two consecutive odd numbers in always divisible by 4.
   (v) If two numbers are co-prime at least one of them must be a prime number.
7. Fill up the blanks:
   (i) A two digit number *ab* can be written in standard form as.....
   (ii) Largest 3-digit number which is divisible by 6 is.....
   (iii) If we add .....to 194562 than it is divisible by 5 and 10 both.
   (iv) If we subtract.....from 53214 than the number so obtained is divisible by 8.
   (v) Smallest 4-digit number which is divisible by 7 is .....