

Ch-16 Playing with numbers

Q1 Find out the values of the letters

$$\begin{array}{r} \text{(i)} \quad 31Q \\ + 1Q3 \\ \hline 501 \end{array}$$

$$\begin{array}{r} \text{(ii)} \quad 2AB \\ + AB1 \\ \hline B18 \end{array}$$

$$\begin{array}{r} \text{(iii)} \quad 8AS \\ + 94A \\ \hline 1A33 \end{array}$$

$$\begin{array}{r} \text{(iv)} \quad AB3 \\ + 2B1 \\ \hline BAA \end{array}$$

$$\begin{array}{r} \text{(v)} \quad 3AB \\ + AB7 \\ \hline C58 \end{array}$$

$$\begin{array}{r} \text{(vi)} \quad CBA \\ + 892 \\ \hline 12A8 \end{array}$$

$$\begin{array}{r} \text{(vii)} \quad AB \\ \times 5 \\ \hline CAB \end{array}$$

$$\begin{array}{r} \text{(viii)} \quad XY \\ \times 6 \\ \hline YYY \end{array}$$

$$\begin{array}{r} \text{(ix)} \quad AB \\ \times 9 \\ \hline ACB \end{array}$$

$$\begin{array}{r} \text{(x)} \quad 783 \\ \times C9 \\ \hline 7047 \\ + 15bbx \\ \hline CC707 \end{array}$$

$$\begin{array}{r} \text{(xi)} \quad ABC \\ \times BOB \\ \hline 5BC9 \end{array}$$

$$\begin{array}{r} \text{(xii)} \quad ABC \\ - CCB \\ \hline BCA \end{array}$$

Q2 Replace * so that the no. is divisible by 9
 (a) $53*21$ (b) $763*312$ (c) $3*1207$

Q3 If the division $N \div 2$ leaves a remainder 1 what might be the ones digit of N?

Q4 Given that the no. $49y17$ is divisible by 9, where y is a digit, what are the possible values of y?

Q5 Given that no. $61942a$ is divisible by 4, where a is a digit. what are the possible values of a?

Q6 use divisibility test to check:-

(i) 8745 and (ii) 67419 are divisible by 11

M.C.Q's

(2)

(i) The sum of 98 and 89 when divided by the sum of their digits, the quotient is
(a) 11 (b) 8 (c) 17 (d) 1

(ii) 31y6 is a no. which is divisible by 3 where y is the smallest digit, then y = —
(a) 6 (b) 0 (c) 2 (d) 1

(iii) Which no. is divisible by 5 and 10?
(a) 3915 (b) 2640 (c) 2365 (d) 905

(iv) For what value of a, the no. 41a56 is div. by 6?
(a) 2, 5, 8 (b) 1, 3, 4 (c) 5, 6, 9 (d) 1, 4, 8

(v) Find the values of a and b if
$$\begin{array}{r} 8a \\ \times b \\ \hline 420 \end{array}$$

(a) 6, 5 (b) 4, 5
(c) 8, 5 (d) 6, 8

Objective type Questions :-

Q1 Make the following statement as 'True' or 'False'

- (i) Divisibility of a no. by 6 can't be decided without actual division
- (ii) A no. divisible by 3 need not be divisible by 9

Q2 The face value of digit 9 in 7891 is —

Q3 The place " " " 9 in 14891 is —

Q4 The greatest value of y if the no. 813y is div by 4

Q5 If a no. is div by 5, what can be the possible values of units digit?

ANSWERS

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Q1 (i) $Q = 8$

(ii) $A = 4$ $B = 7$ (iii) $A = 8$

(iv) $A = 4$ $B = 7$

(v) $A = 4$ $B = 1$ $C = 7$

(vi) $A = 6$
 $B = 7$
 $C = 3$

(vii) $A = 5$
 $B = 0$
 $C = 2$

(viii) $X = 7$
 $Y = 4$

(ix) $A = 3$
 $B = 5$
 $C = 1$

(x) $b = 6$
 $C = 2$

(xi) $A = 9$
 $B = 8$
 $C = 7$

(xii) $A = 7$
 $B = 5$
 $C = 2$

Q2 (a) $* = 7$

(b) $* = 5$

(c) $* = 5$

Q3 ones digit of N
may be 1, 3, 5, 7, 9

Q4 $y = 6$

Q5 possible values of
 $a = 0, 4, 8$

Q6 (i) yes

(ii) yes

M.C.Q's

(i) (a)

(ii) (c)

(iii) (b)

(iv) (a)

(v) (b)

Objective type questions

1) (i) False

(ii) True

2) 9

3) 90

4) 6

5) 0, 5