Remember & Understanding Based Questions

Ques.1) Solve: $\frac{x-5}{3} = \frac{x-3}{5}$

a) 8 b) 2 c) 6 d) 4

Ques.2) Solve the equation: 3x = 2x + 18

a) 9 b) 12 c) 6 d) 18

Ques.3) Solve: 2x - 1 = 14 - x

a) 5 b) 10 c) 20 d) 15

Ques.4) Solve the following: (x + 1) +13 (x - 1) = 512 (x - 2)

a) 512 b) −512 c) −125 d) 125

Ques.5) Solve the following equation: 4z + 3 = 6 + 2z

a) $\frac{3}{2}$ b) $\frac{2}{5}$ c) 2 d) 5

Ques.6) Solve: $a - \frac{a-1}{2} = 1 - \frac{a-2}{3}$

a) 3 b) 5 c) 7 d) $\frac{7}{5}$

Ques.7) Solve for x: $\frac{6x-7}{2x+1} = \frac{3x+1}{x+5}$

a) - 2 b) 2 c) 36 d) 18

Ques.8) Find the value of x: = 8x - 7 - 3x = 6x - 2x - 3

Ques.9) Solve: 0.4 (3x - 1) =0.5x + 1

Ques.10) Solve the equation and check your result: 4z + 3 = 6 + 2z

Ques.11) Solve: 0.16 (5x - 2) = 0.4x + 7

Ques.12) Solve: $3x - \frac{x-2}{3} = 4 - \frac{x-1}{4}$

Ques.13) Simplify and solve the linear equation: 15(y– 4) – 2(y – 9) + 5(y + 6) = 0.

Ques.14) State True & False

1. x = - 12 is the solution of the linear equation 5x - 3 (2x + 1) = 21 + x
2. $\frac{x}{3} = \frac{7}{5} - 1 \Rightarrow \frac{x}{3} + 1 = \frac{7}{5}$.

Ques.15) Fill in the Blanks.

1. A term of an equation can be transposed to the other side by changing its _____.
2. The share of A when ₹ 25 is divided between A and B so that A gets ₹ 8 more than B, is ₹ _____
3. If 5t – 3 =3t – 5 , then t = ?
4. The value of x for which the expressions 3x - 4 and 2x + 1 become equal is _____..

Analytical Based Questions

Ques.1) Assertion (A): A number consists of two digits whose sum is 8. If 18 is added to the number it's digits are reversed. The number is 26.
Reason (R): This problem can also solved by trail and error method.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.2) Assertion (A): After 12 years Anil shall be 3 times as old as he was 4 years ago. The present age of Anil is 12 years.
Reason(R): An equation involving linear polynomials is called a linear equation.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.3) Assertion (A): $2x + \frac{1}{3}x - 2 = \frac{9}{10}$. The value of x is 4.
Reason (R): This problem can be solved by cross multiplication method.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.4) Assertion (A): Divide 184 into parts such that one - third of one part may exceed one - seventh of another part by 8. The two parts are 70 and 114.
Reason (R): Any term of an equation may be taken to the other side with sign changed.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.5) Assertion (A): Two consecutive natural numbers whose sum is 85 are 42 and 43.
Reason (R): Consecutive numbers are those that follow each other in order.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.6) Assertion (A): The solution of ax + b is $\frac{-b}{a}$.
Reason (R): The method of shifting the terms.one.by.one of the equation to other side is called transposition.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.7) Assertion (A): The sum of four multiples of 8 is 208. The four multiples are 40, 48, 56 and 64.
Reason (R): The four multiples of 8 can be taken as x, x + 8, x + 16, x + 24.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.8) Assertion (A): Perimeter of a rectangle is $\frac{16}{3}$ metre. Its length is $\frac{5}{2}$ metre and breadth is $\frac{1}{6}$ metre.
Reason (R): Perimeter is the total space enclosed by the rectangle.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.

Ques.9) Solve for x if kx + a = mx + b
a) $\frac{b-a}{k-m}$ b) $\frac{k-m}{a-b}$ c) $\frac{m-k}{a-b}$ d) $\frac{a-b}{k-m}$

Ques.10) The number of boys and girls in a class is in the ratio 7:5. The number of boys is 8 more than the number of girls. What is the total class strength?
a) 45 b) 0 c) 40 d) 48
Ques.11) The subtraction of 11 times of x from 22 times of y is _____.
a) - 11y + 22x b) 22y - 11x c) 11y - 22x d) 11x - 22y

Ques.12) Solve: $x + 7 - \frac{8x}{3} = \frac{17}{6} - \frac{5x}{2}$

Ques.13) Solve: 5x - 2 (2x - 7) = 2(3x - 1) + $\frac{7}{2}$

Ques.14) Match the Column.

Column A	Column B
a. 3(x - 3) = 5(2x + 1), x = ?	p. x = -6
b. $\frac{x+1}{3} = \frac{x-2}{4} + \frac{1}{3}$, x = ?	q. x = 12
c. $\frac{x-1}{2x+3} = \frac{5}{8}$, x = ?	r. x = -2
d. $\frac{x}{x+15} = \frac{4}{9}$, x = ?	s. $x = \frac{-23}{2}$

Ques.15) Match the Column.

Column A	Column B
a. 2x - 3 = x + 2	p. $5x - \frac{3x}{2} = -14 - \frac{7}{2}$
b. $\frac{4x}{3} + \frac{5}{2} = \frac{-3}{2} + x$	q. 5x - 3x = 7 + 3
c. $5x + \frac{7}{2} = \frac{3x}{2} - 14$	r. 2x - x = 2 + 3
d. 5x - 3 = 3x + 7	s. $\frac{4x}{3} - x = \frac{-3}{2} - \frac{5}{2}$

Ques.16) Match the Column.

Column A	Column B
a. The sum of 3 consecutive multiples of 11 is 363	p. 18
b. Sum of 3 consecutive number is 57. The numbers are -	q. 110, 121, 132
c. 3x = 2x + 18, x = ?	r. -1
d. 5t - 3 = 3t - 5, t = ?	s. 18, 19, 20

Question No. 16 to 19 are based on the given text. Read the text carefully and answer the questions:

Sanju and Ankit were playing a game. Sanju was having some small balls in a box .Ankit added same number of balls in the box. Third friend Dinesh added 11 more balls in the box. Ankit counted all the balls.

Total balls were found to be 23. After counting was over each friend wants back their number of balls.

Ques.16) If initially x balls were in the box then which equation is formed?
a) x + 11 = 23 b) 2x - 11 = 23 c) x - 11 = 23 d) 2x + 11 = 23

Ques.17) How many balls were initially in the box?
a) 5 b) 7 c) 4 d) 6

Ques.18) How many balls were added by Ankit?
a) 6 b) 4 c) 5 d) 7

Ques.19) Sum of the ball of Sanju and Akit = x + x = 2x = _____.