1. The product of a number m and 7 is 63 .

(a) $m \times 63 = 7$ (b) $m + 7 = 63$ (c) $\frac{m}{7} = 63$ (d) $7m = 63$

2. Write equation for "Thrice of a number x added to another number 9 gives 8 ".

(a) $3x + 9 = 8$ (b) $\frac{1}{2}x + x = 8$ (c) $3x + 2x = 8$ (d) $3x = 8$

3. The sum of twice a number and 7, exceeds the number by 18 . The equation to solve the problem is

(a) $2x - 18 = x + 7$ (b) $2x - 7 = x - 18$ (c) $2x + 7 = x + 18$ (d) None of these

4. The statement for the given equation is $x - \frac{7}{2} = 14$

(a) Addition of a number x and $\frac{7}{2}$ is 14 . (b) 14 added to a given number x results $\frac{7}{2}$.

(c) $\frac{7}{2}$ subtracted from a number x gives 14 . (d) None of these

5. In which of the following options, the value given in the bracket satisfy the given equation?

(a) $m + 3 = 2m - 1, (m = 4)$ (b) $1 - 3n = 6, (n = 2)$

(c) $9 + x = 21, (x = 11)$ (d) $y + 5 = 100, (y = 100)$

6. Which of the following equations is not satisfied when $x = 5$?

(a) $3x + 4 = 19$ (b) $2x - 3 = 7$ (c) $\frac{x}{7} = 35$ (d) $5x - 7 = 18$

7. In the following equation, what is the value of x ? $2x + \frac{5}{2} = \frac{37}{2}$

(a) 6 (b) 7 (c) 8 (d) 9

8. What value of p will balance both the pans?

(a) 9 (b) 10 (c) 11 (d) 12

9. Which of the following equations can be formed starting with $x = -3$?

(a) $x + 7 = 10$ (b) $2x + 3 = -3$ (c) $\frac{x}{3} - i = 5$ (d) None of these

10. Nisha's father is 4 times as old as her brother Vinay. After 15 years, he will be thrice the age of Vinay. Form an equation for the above statement.

(a) $4x + 15 = 3(x + 15)$ (b) $3(4x + 15) = x + 15$

(c) $4x + 15 = 3x + 20$ (d) None of these

11. A number is as much greater than 84 as it is less than 108 , find the number.

(a) 84 (b) 108 (c) 86 (d) 96

12. A number when multiplied by 6 gives the same result when by –5 is subtracted from it. Find the number.

(a) –3 (b) –1 (c) 2 (d) 1

13. The length of a rectangle is twice its breadth. If the perimeter of the rectangle is 18cm, the length is

(a) 3cm (b) 4cm (c) 5cm (d) 6cm

14. In an isosceles triangle, the vertex angle is 30° more than one of the base angles. The vertex angle is

(a) 60° (b) 50° (c) 80° (d) 70°

15. Anju's mother is 5 years more than 3 times Anju's age. If mother is 38 years old, then Anju's age is

(a) 10 years (b) 11 years (c) 12 years (d) 15 years

16. The cost of 8 chairs and 2 tables is ₹ 2200 . If a table costs ₹ 700 more than the cost of a chair, then find the cost of a table.

(a) ₹ 800 (b) ₹ 840 (c) ₹ 700 (d) ₹ 780

17. If a and b are positive integers, then the solution of the equation $ax = b$ will always be a

(a) positive number (b) negative number

(c) 1 (d) 0

18. Which of the following is not allowed in a given equation?

(a) Adding the same number to both sides of the equation.

(b) Subtracting the same number from both sides of the equation.

(c) Multiplying both sides of the equation by the same non–zero number.

(d) Dividing both sides of the equation by the same number.

19. The value of y for which the expression $(y-15)$ and $(2y+1)$ become equal is

(a) 0 (b) 16 (c) 8 (d) –16

20. Which of the following equations cannot be formed using the equation $x = 7$?

(a) $2x+1=15$ (b) $7x-1=50$ (c) $x-3=4$ (d) $\frac{x}{7}-1=0$

21. Shifting one term from one side of an equation to another side with a change of sign is known as

(a) commutativity (b) transposition (c) distributivity (d) associativity

22. Assertion : By solving equation, $\frac{2}{21}x+8=x+6$, we get $x=8$ as solution.

Reason . While solving equation by transposition method, we transpose all the terms containing variable on one side and constant terms on the other side of the equal sign using the rule of transposition.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

23. Assertion :Equations, $4x = 24, 4x + 2 = 26$ and $2x + 1 = 13$ are formed from the solution $x = 6$.

Reason : We can construct infinite number of equations from a given solution.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

24. Assertion : The length (in m) of one type of rope is 10 times the other rope. Total length of these two ropes is $11m$. Then the length of two ropes will be $100cm$ and $1000cm$.

Reason : If both L.H.S. and R.H.S. of the equation are interchanged, then equation remains same.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.