3 CODED EQUATION

1. If '×' means '+', '-' means '×', '÷' means '+' and '+' means '-' then

(3 -15 ÷ 11) × 8 + 7 = ?

(1) 1 (2) 4 (3) 0

(4) 8 (5) None of these

2. If '+' means '÷', '×' means '-', '÷' means '×' and '-' means '+' then what will be the result of the following expression?

9 + 3 ÷ 4 - 8 × 12 = ?

(1) $-6\frac{1}{4}$ (2) $6\frac{3}{4}$ (3) 18

(4) $-1\frac{3}{4}$ (5) None of these

3. If '×' means '+', '-' means '×', '÷' means '+' and '+' means '-' then

(3 -18 ÷ 11) × 13 ÷ 8 = ?

(1) 18 (2) 13 (3) 11

(4) 1 (5) None of these

4. If 'A' means '-', 'B' means '÷', 'C' means '+' and 'D' means '×' then -

25 B 5 C 24 A 2 D 12 = ?

(1) 34 (2) 5 (3) $-23\frac{4}{9}$

(4) 2 (5) None of these

5. If '△' means '+', '□' means '×', '▭' means '÷' and 'θ' means '-' then

40 ▭ 8 △ 16 □ 4 θ 13 = ?

(1) 69 (2) 75 (3) 78

(4) 93 (5) None of these

6. If '+' means '÷', '×' means '+', '-' means '×' and '÷' means '-' then which of the following will be the correct equation?

(1) 72 ÷ 6 - 3 × 5 ÷ 3 = 38

(2) 72 × 6 + 7 ÷ 2 - 6 = 24

(3) 72 ÷ 6 + 3 × 5 - 3 = 45

(4) 72 - 6 + 3 × 5 ÷ 3 = 64

(5) None of these

7. If '-' means '+', '+' means '-', '×' means '÷' and '÷' means '×' then which of the following will be the correct equation?

(1) 10 + 5 - 14 ÷ 10 × 15 = 158

(2) 30 + 5 + 14 - 10 × 15 = 122

(3) 30 - 5 + 14 ÷ 10 × 15 = 162

(4) 30 × 5 - 4 ÷ 10 + 15 = 21

(5) None of these

8. If '+' means '÷', '×' means '-', '÷' means '×' and '-' means '+' then

18 + 6 × 4 ÷ 8 - 4 = ?

(1) 12 (2) $\frac{20}{3}$ (3) $-\frac{20}{3}$

(4) -12 (5) None of these

9. If '+' means '÷', '×' means '-', '÷' means '×' and '-' means '+' then

27 + 3 ÷ 4 - 8 × 12 = ?

(1) 32 (2) $6\frac{3}{4}$ (3) $-1\frac{3}{4}$

(4) $6\frac{1}{4}$ (5) None of these

10. If '÷' means '×', '×' means '-', '+' means '÷' and '-' means '+' then

600 ÷ 5 + 15 - 20 × 25 = ?

(1) 25 (2) -27 (3) 195

(4) -45 (5) None of these

11. If '+' means '÷', '×' means '+', '-' means '×' and '÷' means '-' then which of the following will be the correct equation?

(1) 24 + 8 - 7 × 6 ÷ 4 = 25

(2) 20 × 5 + 12 ÷ 6 × 5 = 15

(3) 20 ÷ 5 + 6 × 12 - 4 = $67\frac{1}{6}$

(4) 50 - 4 + 8 × 18 ÷ 6 = 21

(5) None of these

12. If x means '+', y means '-', z means '÷' and p means '×' then

(20 *p* 2 *x* 5 *y* 5) *z* 8 = ?

(1) 5 (2) 10 (3) 15

(4) 20 (5) None of these

13. If '+' shows '÷', '-' shows '=', '×' shows '+', '÷' shows '>', '=' shows '<', '>' shows '×', and '<' shows '-' then the correct expression is-

(1) 5 + 2 × 1= 3 + 14 > 11

(2) 5 > 2 × 1 - 3 > 4 < 1

(3) 5 × 2 < 1 - 3 < 4 × 11

(4) 5 < 2 × 1 ÷ 3 > 4 × 11

(5) None of these

14. If '÷' shows '>', '×' shows '+' '+' shows '÷', '-' shows '=', '>' shows '×', '=' shows '<', '<' shows '-' then which of the following will be the correct?

(1) 3 + 2 < 4 ÷ 6 > 3 × 2

(2) 3 × 2 < 4 ÷ 6 + 3 < 2

(3) 3 > 2 < 4 - 6 × 3 × 2

(4) 3 × 2 × 4 = 6 + 3 < 2

(5) None of these

15. If '+' means '÷', '÷' means '×', '×' means '-', '-' means '+', then which of the following will be the correct ?

(1) 18 ÷ 6 - 7 + 5 × 2 = 20

(2) 18 + 6 ÷ 7 × 5 - 2 = 18

(3) 18 × 6 + 7 ÷ 6 - 2 = 16

(4) 18 ÷ 6 × 7 + 5 - 2 = 22

(5) None of these

16. If '-' means '÷', '+' means '×', '÷' means '-', '×' means '+', then which of the following will be the correct?

(1) 6 ÷ 20 × 12 + 7 - 1 = 70

(2) 6 + 20 - 12 ÷ 7 × 1 = 62

(3) 6 - 20 + 12 × 7 ÷ 1 = 57

(4) 6 + 20 - 12 ÷ 7 × 1 = 38

(5) None of these

Directions (17 - 20): Study the following information carefully to answer the given questions:

' A * B' means 'A × B'.

' A @ B' means 'A - B'.

' A $ B' means 'A + B'.

' A # B' means 'A ÷ B'.

17. Rupesh donates 7% of his monthly salary 'R' and ₹ 3000 as rent of his house. What will remain with him after donating 7% and paying house rent?

(1) R @ 3000 @ 7 * 100 # R

(2) R @ 7 * R # 100 # 3000

(3) R @ (R * 7 # 100 $ 3000)

(4) 3000 $ 7 * 100 # R @ R

(5) None of these

18. What will be the average of five continuous even numbers in which 'S' is the smallest number?

(1) (S $ 20) # 5 (2) 20 # S $ 5

(3) S $ 4 (4) S $ 10 # 5

(5) None of these

19. If the price of 6 lemon is ₹ 5 then how much lemons can be purchased in ₹ 100.

(1) 6 * 5 # 100 (2) 100 * 6 # 5

(3) 100 $ 6 # 5 (4) 6 * 100 @ 5

(5) None of these

20. The area of a circle is $\frac{22}{7}$ times the square of its radius. How many times the surface area of 21 circle will be of radius (r cm)?

(1) 22 * r 7 * r # 21

(2) 22 # 21 * r * r

(3) 66 r^2 # 7

(4) 66 * r * r

(5) None of these

21. If R means × , D means ÷, A means + and S means -, then what is the value of

95 D 19 R 11 S 28 A 17 ?

(1) 34 (2) 46 (3) 35

(4) 48 (5) None of these

22. If 'P' means '×', R means '+', 'T' means '÷' and S means '-', then

18 T 3 P 9 S 8 R 6 = ?

(1) $-1\frac{1}{3}$ (2) 46 (3) 58

(4) $\frac{2}{3}$ (5) None of these

23. If '<' means 'minus', '>' means 'plus', '=' means 'multiplied by', and '$' means 'divided by', then what would be the value of

27 > 81 $ 9 < 8 = 2 = ?

(1) 20 (2) -4 (3) 8

(4) 56 (5) None of these

24. If 'P' means 'division', 'T' means 'addition', 'M' means 'substraction', and 'D' means 'multiplication', then what will be the value of the following expression?
12 M 12 D 28 P 7 T 15 ?
(1) -15 (2) 45 (3) - 30
(4) 15 (5) None of these

25. If '+' means 'divided by', '-' means 'added to', '×' means 'subtracted from' and '÷' means 'multiplied by' then what is the value of-
24 ÷ 12 – 18 + 9 ?
(1) 15.30 (2) 290 (3) -25
(4) 0.72 (5) None of these

26. If $ means 'plus (+)', # means 'minus (-)', @ means 'multiplied (×)', and * means 'divided (÷)', then what is the value of
'16 $ 4 @ 5 # 72 * 8' ?
(1) 29 (2) 27 (3) 25
(4) 36 (5) None of these

27. If '+' means '-', '-' means '×', '×' means '÷' and '÷' menas '+' in the given equation, then
[{(217 × 310) + (190 + 1·14)}] - 100 ÷ 50 = ?
(1) 40 (2) 60 (3) 80
(4) 100 (5) None of these

28. If 'L' means '×', 'M' means '+', 'N' means '÷' and 'P' menas '-' then
1 4 N 2 L 7 P 2 5 M 1 = ?
(1) -25 (2) -23 (3) 26
(4) 24 (5) None of these

29. If '+' means '÷', '÷' means '-', '-' means '×' and '×' menas '+' then what is the value of
6 × 3 ÷ 2 - 2 + 5 = ?
(1) $8\frac{1}{5}$ (2) $2\frac{3}{5}$ (3) 3
(4) $4\frac{2}{7}$ (5) 4

30. If 'P' denotes '+', 'Q' denotes '×', 'R' denotes '+' and 'S' denotes '-' then
18 Q 12 P 4 R 5 S 6 = ?
(1) 51 (2) 57 (3) 53
(4) 95 (5) 0

31. If '+' means '-', '-' means '×', '×' means '÷' and '÷' menas '+' then, find the value of
14 × 3 ÷ 11 - 3 + 101 = ?
(1) $63.\overline{3}$ (2) $-63.\overline{3}$ (3) 63.48
(4) 63.3 (5) -63

32. If '*' means '×', '#' means '-', '@' means '÷' and '$' menas '+' then
25 # 5 $ 3 * 4 @ 6 = ?
(1) 12 (2) 15.3 (3) 22
(4) 8 (5) None of these

33. If '-' means '÷', '+' means '×', '÷' means '-' and '×' menas '+' then, which of the following equation is correct?
(1) 36 - 12 × 6 ÷ 3 + 4 = 60
(2) 43 × 7 ÷ 5 + 4 - 8 = 25
(3) 36 × 4 - 12 + 5 ÷ 3 = 420
(4) 52 ÷ 4 + 5 × 8 - 2 = 36
(5) None of these

34. If '+' is written as '×', '–' is written as '÷', '×' is written as '–' and '÷' is written as '+' then what is the actual value of -
72 + 9 × 45 - 5 ÷ 42 - 6 ?
(1) 648 (2) 646 (3) 656
(4) 636 (5) None of these

35. If 'P' means '–', 'Q' means '×', 'R' means '÷' and 'S' means '+' then what will be the value of the following expression?
8 Q 7 S 30 R 15 P 10
(1) 33 (2) 39 (3) 48
(4) 49 (5) 42

36. If 'P' means '+', 'Q' means '×', 'R' means '÷' and 'T' means '–' then what will be the value of
120 R 15 Q 5 P 16 T 22 ?
(1) –34 (2) 16 (3) –35
(4) 35 (5) 34

37. If '+' means '÷', '×' means '+', '–' means '×' and '÷' means '–' then what will be the value of 800 + 20 – 4 × 40 ÷ 10 ?
(1) 3984 (2) 984 (3) 3264
(4) 190 (5) 200

38. If 'A' means '×', 'B' means '÷', 'C' means '+' and 'D' means '–' then what is the value of
180 B 15 D 11 C 8 A 10 ?
(1) –79 (2) 102 (3) 83
(4) 92 (5) None of these

39. If '+' stands for '–', '÷' stands for '+', '–' stands for '×' and '×' stands for '÷' then, which one of the following equations is correct?
(1) 265 + 11 – 2 × 14 = 22
(2) 2 – 14 × 4 ÷ 11 = 16
(3) 46 – 10 + 10 × 5 = 92
(4) 66 × 3 – 11 + 12 = 230
(5) None of these

40. If 'P' means '×', 'Q' means '÷', 'R' means '+' and 'S' means '–' then what is value of
154 Q 14 S 7 P 3 R 25 ?
(1) 35 (2) 57 (3) 42
(4) 25 (5) None of these

Answers with Explanation:

1. 3; After changing signs according to the question, the new equation will be:
$(3 \times 15 + 11) + 8 - 7$
$(45 + 11) + 8 - 7 = ?$
$56 + 8 - 7 = ?$
$7 - 7 = ?$
$\therefore ? = 0$

2. 5; After changing signs according to the question, the new equation will be:
$9 + 3 \times 4 + 8 - 12$
$3 \times 4 + 8 - 12 = ?$
$12 + 8 - 12 = ?$
$20 - 12 = 8$

3. 2; After changing signs according to the question, the new equation will be:
$(3 \times 18 + 11) \div 13 + 8$
$= (54 + 11) \div 13 + 8$
$= 65 \div 13 + 8 = 5 + 8 = 13$

4. 2; After changing signs according to the question, the new equation will be:
$25 \div 5 + 24 - 2 \times 12$
$= 5 + 24 - 24 = 29 - 24 = 5$

5. 5; After changing signs according to the question, the new equation will be:
$40 \div 8 + 16 \times 4 - 13$
$= 5 + 16 \times 4 - 13$
$= 5 + 64 - 13 = 69 - 13 = 56$

6. 1; After changing signs according to the question, the new equations will be:
Here,
(1) $72 \div 6 \times 3 + 5 - 3 = 38$
(2) $72 + 6 + 7 - 2 \times 6 = 60\frac{4}{7}$
(3) $72 - 6 \div 3 + 5 \times 3 = 85$
(4) $72 \times 6 \div 3 + 5 - 3 = 146$
From option (1),
$72 \div 6 \times 3 + 5 - 3$
$= 12 \times 3 + 5 - 3$
$= 36 + 5 - 3$
$= 41 - 3 = 38$ (True)

7. 4; After changing signs according to the question, the new equation will be:
Here,
(1) $10 - 5 + 14 \times 10 \div 15 = 14\frac{1}{3}$
(2) $30 - 5 - 14 + 10 \div 15 = 11\frac{2}{3}$
(3) $30 + 5 - 14 \times 10 \div 15 = 25\frac{2}{3}$
(4) $30 + 5 + 4 \times 10 - 15 = 31$
From option (4),
$30 + 5 + 4 \times 10 - 15$
$= 6 + 40 - 15$
$= 46 - 15 = 31$ (True)

8. 5; After changing signs according to the question, the new equation will be:
$18 + 6 - 4 \times 3 + 4$
$= 3 - 4 \times 3 + 4 = 3 - 12 + 4$
$= 7 - 12 = -5$

9. 1; After changing signs according to the question, the new equation will be:
$27 + 3 \times 4 + 8 - 12$
$= 9 \times 4 + 8 - 12$
$= 36 + 8 - 12 = 44 - 12 = 32$

10. 3; After changing signs according to the question, the new equation will be:
$600 \times 5 - 15 + 20 - 25$
$= 600 \times \frac{5}{15} + 20 - 25$
$= 40 \times 5 + 20 - 25 = ?$
$= 200 + 20 - 25 = ?$
$= 220 - 25 = 195$

11. 3; After changing signs according to the question, the new equations will be:
(1) $24 \div 8 \times 7 + 6 - 4 = 23$
(2) $20 + 5 \div 12 - 6 + 5 = 19\frac{5}{12}$
(3) $20 - 5 \div 6 + 12 \times 4 = 67\frac{1}{6}$
(4) $50 \times 4 \div 8 + 18 - 6 = 37$
From option (3),
$20 - 5 \div 6 + 12 \times 4$
$= 20 - \frac{5}{6} + 48 = 68 - \frac{5}{6} = 67\frac{1}{6}$ (True)

12. 1; After changing signs according to the question, the new equation will be:
$(20 \times 2 + 5 - 5) \div 8$
$= (40 + 5 - 5) \div 8$
$= (45 - 5) \div 8 = 40 \div 8 = 5$

13. 2; After changing signs according to the question, the new equations will be:
Here,
(1) $5 \div 2 + 1 < 3 \div 14 \times 11$
or, $3.5 < 2\frac{5}{14}$ (Incorrect)
(2) $5 \times 2 + 1 = 3 \times 4 - 1$ (Correct)
(3) $5 + 2 - 1 = 3 - 4 + 11$

or, 9 = 10 (Incorrect)

(4) 5 - 2 + 1 > 3 × 4 + 11

or, 4 > 23 (Incorrect)

From option (2),

5 × 2 + 1 = 3 × 4 - 1

= 11 = 11 (True)

14. 2; After changing signs according to the question, the new equations will be:

Here,

(1) 3 ÷ 2 - 4 > 6 × 3 + 2

or, -2.5 > 20 (Incorrect)

(2) 3 + 2 - 4 > 6 ÷ 3 - 2

or, 1 > 0 (Correct)

(3) 3 × 2 - 4 = 6 + 3 + 2

or, 2 = 11 (Incorrect)

(4) 3 + 2 + 4 < 6 ÷ 3 - 2

or, 9 < 0 (Incorrect)

From option (2),

3 + 2 - 4 > 6 ÷ 3 - 2 = 1 > 2 - 2 = 1 > 0

15. 2; After changing signs according to the question, the new equations will be:

(1) $18 \times 6 + 7 \div 5 - 2 = 107\frac{2}{5}$

(2) 18 ÷ 6 × 7 - 5 + 2 = 18

(3) $18 - 6 \div 7 \times 6 + 2 = 14\frac{6}{7}$

(4) $18 \times 6 - 7 \div 5 + 2 = 108\frac{3}{5}$

From option (2),

18 ÷ 6 × 7 - 5 + 2 = 3 × 7 - 5 + 2

= 21 - 5 + 2 = 23 - 5 = 18

16. 1; After changing signs according to the question, the new equations will be:

(1) 6 - 20 + 12 × 7 ÷ 1 = 70

(2) 6 × 20 ÷ 12 - 7 + 1 = 4

(3) $6 \div 20 - 12 + 7 \times 1 = -4\frac{7}{10}$

(4) 6 × 20 + 12 - 7 ÷ 1 = 3

From option (1),

6 - 20 + 12 × 7 ÷ 1

= 6 - 20 + 12 × 7

= 6 - 20 + 84 = 90 - 20 = 70

17. 3; Remaining Amount.

$= R - \left(\frac{7R}{100} + 3000\right)$

= R @ (R * 7 # 100 $ 3000)

18. 3; Sum of five continuous even numbers

= S + S + 2 + S + 4 + S + 6 + S + 8

= 5S + 20 = 5(S + 4)

Average = $\frac{5(S+4)}{5}$ = S + 4

= S + 4 = S $ 4

19. 2; ∵ In Rs. 5, 6 lemons can be purchased

∴ In Rs. 100, the number of lemons can be purchased

$= \frac{6}{5} \times 100 = 100 * 6 \# 5$

20. 4; Area of total 21 circles = $21\pi r^2$

$= 21 \times \frac{22}{7} \times r \times r$

= 22 × 3 × r × r

= 66 × r × r = 66 * r * r

21. 5; After changing signs according to the question, the new equation will be:

95 ÷ 19 × 11 - 28 + 17

= 5 × 11 - 28 + 17 = 55 - 28 + 17

= 55 + 17 - 28 = 72 - 28 = 44

22. 5; After changing signs according to the question, the new equation will be:

18 ÷ 3 × 9 - 8 + 6

= 6 × 9 - 8 + 6 = 54 - 8 + 6

= 60 - 8 = 52

23. 1; After changing signs according to the question, the new equation will be:

27 + 81 ÷ 9 - 8 × 2

= 27 + 9 - 16 = 36 - 16 = 20

24. 5; After changing signs according to the question, the new equation will be:

12 - 12 × 28 ÷ 7 + 15

= 12 - 12 × 4 + 15 = 12 - 48 + 15

= 27 - 48 = -21

25. 2; After changing signs according to the question, the new equation will be:

24 × 12 + 18 ÷ 9

= 24 × 12 + 2 = 288 + 2 = 290

26. 2; After changing signs according to the question, the new equation will be:

16 + 4 × 5 - 72 ÷ 8

= 16 + 4 × 5 - 9

= 16 + 20 - 9 = 36 - 9 = 27

27. 5; We have

[{(217 × 310) + (190 + 114)} × 190] - 100 ÷ 50

After changing signs according to the instruction in the question part, the new equation will be:

[{(217 ÷ 310) - (190 - 114)} ÷ 190] × 100 + 50

$$=\left[\left\{\frac{217}{310}-76\right\}\div 190\right]\times 100+50$$

$$=\left[\frac{-753}{10}\div 190\right]\times 100+50$$

$$=-\frac{753}{1900}\times 100+50=-39\frac{12}{19}+50=10\frac{7}{9}$$

28. 3; After changing signs according to the question, the new equation will be:
$14 \div 2 \times 7 - 25 + 1$
$= 7 \times 7 - 25 + 1 = 49 - 25 + 1$
$= 49 + 1 - 25 = 50 - 25 = 25$

29. 1; After changing signs according to the question, the new equation will be:
$6 + 3 - 2 \times 2 \div 5$

$= 6 + 3 - 2 \times \frac{2}{5} = 6 + 3 - \frac{4}{5} = 9 - \frac{4}{5}$

$= \frac{45-4}{5} = \frac{41}{5} = 8\frac{1}{5}$

30. 3; After changing signs according to the question, the new equation will be:
$18 \times 12 \div 4 + 5 - 6$
$= 18 \times 3 + 5 - 6$
$= 54 + 5 - 6 = 59 - 6 = 53$

31. 2; After changing signs according to the question, the new equation will be:
$14 \div 3 + 11 \times 3 - 101$

$= \frac{14}{3} + 33 - 101 = -63\frac{1}{3}$
$= -63.3333\ldots\ldots = -63.\bar{3}$

32. 3; After changing signs according to the question, the new equation will be:
$25 - 5 + 3 \times 4 \div 6$

$= 25 - 5 + 3 \times \frac{2}{3} = 25 - 5 + 2$

$= 25 + 2 - 5 = 27 - 5 = 22$

33. 4; From equation (4), After changing signs according to the question, the new equations will be:
(1) $36 - 12 + 6 - 3 \times 4 = -3$

(2) $43 + 7 - 5 \times 4 \div 8 = 47\frac{1}{2}$

(3) $36 + 4 \div 12 \times 5 - 3 = 34\frac{2}{3}$

(4) $52 - 4 \times 5 + 8 \div 2 = 36$
From option (4),
$52 - 4 \times 5 + 8 \div 2$
$= 52 - 4 \times 5 + 4 = 52 - 20 + 4$
$= 52 + 4 - 20 = 56 - 20 = 36$ (True)

34. 5; After changing signs according to the question, the new equation will be:
$72 \times 9 - 45 \div 5 + 42 \div 6$
$= 72 \times 9 - 9 + 7 = 648 - 9 + 7$
$= 655 - 9 = 645$

35. 3; After changing signs according to the question, the new equation will be:
$8 \times 7 + 30 \div 15 - 10$
$= 8 \times 7 + 2 - 10 = 56 + 2 - 10$
$= 58 - 10 = 48$

36. 5; After changing signs according to the question, the new equation will be:
$120 \div 15 \times 5 + 16 - 22$
$= 8 \times 5 + 16 - 22 = 40 + 16 - 22$
$= 56 - 22 = 34$

37. 4; After changing signs according to the question, the new equation will be:
$800 \div 20 \times 4 + 40 - 10$
$= 40 \times 4 + 40 - 10$
$= 160 + 40 - 10 = 200 - 10 = 190$

38. 5; After changing signs according to the question, the new equation will be:
$180 \div 15 - 11 + 8 \times 10$
$= 12 - 11 + 8 \times 10$
$= 12 - 11 + 80 = 92 - 11 = 81$

39. 4; From equation (4) After changing signs according to the question, the new equations will be:

(1) $265 - 11 \times 2 \div 14 = 263\frac{3}{7}$

(2) $2 - 14 \times 4 \div 11 = 16$
(3) $46 - 10 + 10 \times 5 = 92$
(4) $66 \div 3 \times 11 - 12 = 230$
From option (4):
$66 \div 3 \times 11 - 12$
$= 22 \times 11 - 12 = 242 - 12$
$= 230$ (True)

40. 5; After changing signs according to the question, the new equation will be:
$154 \div 14 - 7 \times 3 + 25$
$= 11 - 7 \times 3 + 25 = 11 - 21 + 25$
$= 36 - 21 = 15$