Number System

Choose the appropriate answer:

1. The temperature at 12 noon at a certain place was 18 º above zero. If it decreases at the rate of 3 ° per hour at what time it would be 12 º below zero?
   (a) 10 am   (b) 12 mid night   (c) 10 pm   (d)12 noon

   Temperature at 12 noon = 18° above zero = +18°
   Rate of decrease per hour = -3°
   Temperature 12° below zero = -12°
   -12 is 30 units to the left of+18°
   Time at which it reach -12° = 30 / 3   = 10 h
   10 hrs after 12 noon = 10 pm

   Ans: (iv) 10 pm

2. Identify the problem with negative numbers as its answer.
   (a) 10+ (−4) +8   (b) −4+2+10   (c) −9+ (−5) +6   (d) 18+ (−12) −6

   (a) 10+(−4)+8   = 14
   (b) −4+2+10   = 8
   (c) −9+(−5)+6   = - 8
   (d) 18+(−12)−6 = 0

   Ans: (c) −9+ (−5) +6

3. (-10) + (+7) = _____
   (a) +3   (b) -3   (c) -17   (d) +17
   Ans: (b) -3

4. (-8) + 10 + (-2) = _____
   (a) 2   (b) 8   (c) 0   (d) 20
   Ans: (c) 0

5. 20 + (-9) + 9 = _____
   (a) 20   (b) 29   (c) 11   (d) 38
   Ans: (a) 20

6. (−5)−(−18)= _____
   (a) 13   (b) −13   (c) 23   (d) −23
   Ans: (a) 13

7. (−100)−0+100= _____
   (a) 0   (b) 200   (c) 100   (d) −200
   Ans: (a) 0

8. Which of the following expressions is equal to −30?
   (a) (−6) × (+5) (b) −20− (−5×2)   (c) (6×10) − (6×5) (d) (2×5) + (4×5)

(a) (−6)×(+5)	= -30
(b) −20−(−5×2)	= -10
(c) (6×10)−(6×5)	= 30
(d) (2×5)+(4×5)	= 30

   Ans: (a) (−6) × (+5)

9. Which property is illustrated by the equation: (5×2)+(5×5)=5×(2+5)
   (a) Associative (b) Distributive (c) Commutative (d) Closure
   Ans: (b) Distributive

10. Which of the following does not represent an integer?
    (a) 0÷ (−7)   (b) 20÷ (−4)   (c) (−9) ÷3   (d) (-12) ÷5

    a. $0 \div (-7) = 0$
    b. $20 \div (-4) = -5$
    c. $(-9) \div 3 = -3$
    d. $(-12) \div 5 = \dfrac{-12}{5}$

    Ans: (d) (-12) ÷5

11. The set of integers is not closed under
    (a) Addition (b) Multiplication (c) Subtraction   (d) Division
    Ans: (d) Division

12. The place value of 3 in 85.073 is _____.
    (a) Thousandths   (b) Tenths (c) Hundredths   (d) Thousands
    Ans: (a) Thousandths

13. To convert grams into kilograms, we have to divide it by
    (a) 100   (b) 1000   (c) 10   (d) 10000
    Ans: (b) 1000

14. The decimal representation of 30 kg and 43 g is _____ kg.
    (a) 30.43   (b) 30.043   (c) 30.0043   (d) 30.430
    Ans: (b) 30.043

15. 3 / 5 =
    (a) 0.06   (b) 0.006   (c) 0.6   (d) 6
    Ans: (c) 0.6

16. 0.009 is equal to
    (a) 0.90 (b) 0.900   (c) 0.090 (d) 0.00900
    Ans: (d) 0.00900

17. 78.56 _____ 78.57
    (a) >   (b) <   (c) =   (d) ≠
    Ans: (b) <

18. Between which two whole numbers 1.7 lies?
    (a) 1 and 2   (b) 1 and 7 (c) 2 and 3   (d) 3 and 4
    Ans: (a) 1 and 2

19. Subtract 1.35 from 3.51
    (a) 8.64   (b) 2.16   (c) 6.21 (d) 4.86
    Ans: (b) 2.16

20. A frog jumps 5.3 cm in one jump. The distance travelled by the frog in 10 jumps
    is _____.
    (a) 53.5 cm   (b) 0.53 cm   (c) 53.0 cm   (d) 530 cm
    Ans: (c) 53.0 cm

21. (-10) + (+7) = _____
    (a) +3   (b) -3   (c) -17   (d) +17
    Ans: (b) - 3

22. (-12) × (- 9) =
    (a) 108   (b) -108   (c) +1   (d) -1
    Ans: (a) 108

23. The set of integers is not closed under
    (a) Addition   (b) Subtraction   (c) Multiplication   (d) Division
    Ans: (d) Division

24. (- 200) – 0 - 100 =
    (a) 200   (b) 0   (c) 100   (d) - 300
    Ans: (d) - 300

25. Which of the following expressions is equal to -10.
    (a) -20 – (- 5 × 2)   (b) (6 × 10) – (6× 5)   (c) (2 × 5) + (4 × 5)   (d) (- 6) × (+5)
    Ans: (a) - 20 – (- 5 x 2)

26. 20 + (- 9) + 9 = _____
    (a) 20   (b) 29   (c) 11   (d) 38
    Ans: (a) 20

27. Which property is illustrated by the equation: (5 × 2) = (2 x 5)
    (a) Commutative   (b) Closure   (c) Distributive   (d) Associative

Ans: (a) Commutative

28. Which of the following represent as zero integer?
    (a) $0 \div (-7)$ (b) $20 \div (-4)$ (c) $(-9) \div 3$ (d) $12 \div 5$
    Ans: (a) $0 \div (-7)$

29. Identify the problem with positive numbers as its answer.
    (a) $-9 + (-5) + 6$ (b) $8 + (-12) - 6$ (c) $-4 + 2 + 10$ (d) $10 + (-4) - 8$
    Ans: (c) $-4 + 2 + 10$

30. $(-16) \div 4$ is the same as
    (a) $-(-16 \div (-4))$ (b) $-(16) \div (-4)$ (c) $16 \div (-4)$ (d) $(-4) \div (-16)$
    Ans: (c) $16 \div (-4)$

31. $(-5) - (-18)$
    (a) 23   (b) -13 (c) 13   (d) -23
    Ans: (c) 13

32. $(-200) \div 10$ is
    (a) 20   (b) -20 (c) -190 (d) 210
    Ans: (b) -20

33. $11 \times (-1) = \underline{\hspace{1cm}}$
    (a) -1 (b) 0   (c) $+1$ (d) -11
    Ans: (d) -11

34. $(-8) + 10 + (-2) = \underline{\hspace{1cm}}$
    (a) 2   (b) 8   (c) 0   (d) 20
    Ans: (c) 0

35. On a number line, when we add a positive integer, we
    (a) Move to the right   (b) Move to the left   (c) Do not move at all   (d) None of these
    Ans: (a) Move to the right

36. On a number line, when we add a negative integer, we
    (a) Move to the right   (b) Move to the left   (c) Do not move at all   (d) None of these
     Ans: (b) Move to the left

37. On a number line, when we subtract a negative integer, we
    (a) Move to the right   (b) Move to the left   (c) Do not move at all   (d) None of these
    Ans: (a) Move to the right

38. If p: when a positive integer and a negative integer are added we always get a negative integer and q: when two negative integers are added, we get a positive integer, then.
    (a) Both p and q are true   (b) p is true and q is false   (c) p is false and q is true   (d) Both p and q are false

Ans: (d) Both p and q are false

> For example: (+ 8) + (− 6) = 2. Hence the p statement is false.
> (− 7) + (− 9) = −16. Hence q statement is also false.

39. Which of the following is true?
    (a) (- 8) + (- 4) > (- 8) – (- 4)   (b) (- 8) + (- 4) < (- 8) – (- 4)   (c) (-8) + (- 4) = (- 8) – (- 4)   (d) None of these
    Ans: (b) (- 8) + (- 4) < (- 4)

> (- 8) + (- 4) = -12
> (- 8) – (- 4) = - 4
> Hence (- 8) + (- 4) < (- 8) – (- 4)

40. The expression ((2)°+(3)°+(5)°)° is equal to _____
    (a) 3   (b) 1   (c) 10   (d) 0
    Ans: (b) 1

> Anything power zero equal to 1

41. (−10) × 0 × (−15) is equal to
    (a) 0   (b) 1   (c) 3   (d) 20
    Ans: (a) 0

> 0 multiplied with anything gives 0.

42. Determine the integer whose product with '− 1' is :
    (a) 0   (b) 1   (c) 3   (d) 20
    Ans: (b) 1

> −1 = −1 × 1

43. If x / 5 = 1, then x is equal to
    (a) 1   (b) 3   (c) 4   (d) 5
    Ans: (d) 5

44. The additive identity for integers is
    (a) 0   (b) -1   (c) 0   (d) None of these
    Ans: (c) 0

> a + 0 = a = 0 + a ⟹ 0 is an additive identity

45. The multiplicative identity for integers is
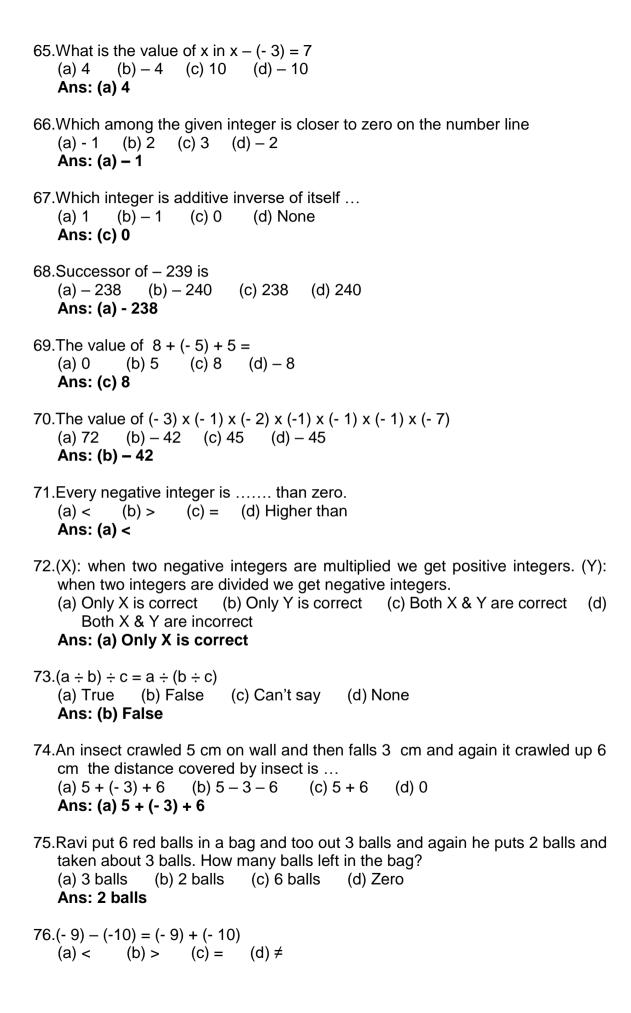   (a) 1 (b) -1 (c) 0 (d) None of these
    Ans: (a) 1

> a × 1 = a = 1 × a. So, 1 is the multiplicative identity for integers.

46. The property represented by a × (b + c) = a × b + a × c is
    (a) Commutative property   (b) Associative property   (c) Distributive property
        (d) None of these
    Ans: (c) Distributive property

47. Manish deposits Rs 2000 in his bank account and withdraws Rs 1000 from it,
    the next day. Find the balance in Manish's account after the withdrawal.
    (a) Rs 2000   (b) Rs 3000   (c) Rs 1000   (d) None of these
    Ans: (c) Rs 1000

    | 2000 – 1000 = Rs 1000 |

48. Find 4 x (- 8)
    (a) – 32   (b) 32   (c) None of these   (d) 30
    Ans: (a) – 32

    | The product of 2 numbers of opposite signs is negative. |

49. Additive inverse of 10 is :
    (a) 0   (b) 10   (c) -10   (d) None of these
    Ans: (-10)

50. If a, b, c are 3 integers then, a + (b + c) =
    (a) a + b + c   (b) (a + b) + c   (c) (a + c) + b   (d) None of these
    Ans: (b) (a + b) + c

    | Addition of an integer is associative. |

51. Evaluate of – 50 ÷ 5
    (a) -10   (b) 10   (c) None of these   (d) 12
    Ans: (a) -10

52. 0 ÷ 9 =
    (a) 9   (b) 0   (c) None of these   (d) 10
    Ans: (b) 0

    | Zero divided by any non-zero integer, the result is zero. |

53. Find predecessor of – 3
    (a) – 2   (b) – 1   (c) None of these   (d) – 4
    Ans: (d) – 4

    | The predecessor of an integer is just before it on the number line. |

54. Successor of 11 is :
    (a) 10   (b) 13   (c) None of these   (d) 12
    Ans: (d) 12

    | The successor of an integer is right to it on a number line. |

55. 5 and 3 are two integers then :
   (a) 5 is smaller than 3   (b) Both are equal   (c) 5 is greater than 3   (d) None of these
   Ans: (b) 5 is greater than 3

   > Greater number is on the right of smaller on a number line.

56. The product of (-) x (-) x (-) is :
   (a) +   (b) –   (c) None of these   (d) x
   Ans: (b) –

   > The product of 3 negative integers is a negative integer.

57. (- 9) + (- 4)   □   (- 9) – (- 4)   Fill in the blanks.
   (a) >   (b) <   (c) ≥   (d) ≤ +1
   Ans: (b) <

   (- 9) + (- 4) = - 13   <   (- 9) – (- 4) = (- 9) + 4 = - 5

58. The set of negative numbers along with the setup of whole number are called
   (a) Natural numbers   (b) Integers   (c) Fractions   (d) Prime
   Ans: (b) Integers

59. The whole number is neither positive nor negative
   (a) 1   (b) 2   (c) 3   (d) 0
   Ans: (d) 0

60. Additive inverse of 6 is
   (a) – 6   (b) 0   (c) 1   (d) None
   Ans: (a) – 6

61. (- 6) + (- 8) = (- 8) + (- 6) represent which property
   (a) Commutative   (b) Associative   (c) Additive Identity   (d) Property of one
   Ans: (a) Commutative

62. (- 5) – (- 3) = - 2 represent which property
   (a) Commutative property   (b) Associative property   (c) Distributive property
       (d) Closures
   Ans: (d) Closures

63. When two negative integers are multiplied we get integer which is …..
   (a) Negative   (b) Positive   (c) Zero   (d) None
   Ans: (b) Positive

64. On subtracting (- 5) from (- 8) we get …..
   (a) 3   (b) – 3   (c) 13   (d) – 13
   Ans: (b) – 3

65. What is the value of x in x – (- 3) = 7
    (a) 4   (b) – 4   (c) 10   (d) – 10
    Ans: (a) 4

66. Which among the given integer is closer to zero on the number line
    (a) - 1   (b) 2   (c) 3   (d) – 2
    Ans: (a) – 1

67. Which integer is additive inverse of itself …
    (a) 1   (b) – 1   (c) 0   (d) None
    Ans: (c) 0

68. Successor of – 239 is
    (a) – 238   (b) – 240   (c) 238   (d) 240
    Ans: (a) - 238

69. The value of 8 + (- 5) + 5 =
    (a) 0   (b) 5   (c) 8   (d) – 8
    Ans: (c) 8

70. The value of (- 3) x (- 1) x (- 2) x (-1) x (- 1) x (- 1) x (- 7)
    (a) 72   (b) – 42   (c) 45   (d) – 45
    Ans: (b) – 42

71. Every negative integer is ……. than zero.
    (a) <   (b) >   (c) =   (d) Higher than
    Ans: (a) <

72. (X): when two negative integers are multiplied we get positive integers. (Y): when two integers are divided we get negative integers.
    (a) Only X is correct   (b) Only Y is correct   (c) Both X & Y are correct   (d) Both X & Y are incorrect
    Ans: (a) Only X is correct

73. (a ÷ b) ÷ c = a ÷ (b ÷ c)
    (a) True   (b) False   (c) Can't say   (d) None
    Ans: (b) False

74. An insect crawled 5 cm on wall and then falls 3 cm and again it crawled up 6 cm the distance covered by insect is …
    (a) 5 + (- 3) + 6   (b) 5 – 3 – 6   (c) 5 + 6   (d) 0
    Ans: (a) 5 + (- 3) + 6

75. Ravi put 6 red balls in a bag and too out 3 balls and again he puts 2 balls and taken about 3 balls. How many balls left in the bag?
    (a) 3 balls   (b) 2 balls   (c) 6 balls   (d) Zero
    Ans: 2 balls

76. (- 9) – (-10) = (- 9) + (- 10)
    (a) <   (b) >   (c) =   (d) ≠

Ans: (d) ≠

77. 9 ÷ 0 =
   (a) 0   (b) 9   (c) Not defined   (d) None
   Ans: (c) Not defined

78. 1673 x 99 – (- 1673) =
   (a) 1637   (b) 99   (c) 16730   (d) None
   Ans: (c) 16730

79. (a - b) – c = a – (b - c)
   (a) =   (b) ≠   (c) >   (d) None
   Ans: (a) =

80. How much – 20 is less than - 5
   (a) 15   (b) – 15   (c) None   (d) 25
   Ans: (b) – 15

81. The value of (-2) x 5 x (-1) x (-3) x (-10)
   (a) – 300   (b) 300   (c) 0   (d) None
   Ans: (b) 300

82. (- 27) ÷ 3 = 27 ÷ (- 3)
   (a) <   (b) >   (c) =   (d) ≠
   Ans: (c) =

83. Which of the following statement is false
   (a) - 4 > - 5   (b) – 4 < 5   (c) 4 < - 5   (d) 4 > - 5
   Ans: (c) 4 < - 5

84. The number 3 less than – 2 is
   (a) – 1   (b) 1   (c) 5   (d) – 5
   Ans: (a) – 1

85. Which of the following statement is true.
   (a) 2 subtracted from – 3 gives 1   (b) – 1 subtracted from – 5 gives 6   (c)
      3 subtracted from – 8 gives - 11   (d) 1 subtracted from – 7 gives - 6
   Ans: (c) 3 subtracted from – 8 gives - 11

86. The sum of – 30 and -12 is
   (a) 42   (b) - 18   (c) - 42   (d) 18
   Ans: (c) – 42

87. In addition and subtraction of the integers the sign answer depends upon
   (a) Smaller Number   (b) Their difference   (c) Their sum   (d) Greater
      numerical value
   Ans: (d) Greater numerical value

88. The absolute value of -11 is
   (a) 10   (b) -1   (c) 11   (d) -11

Ans: (d) -11

89. Sum of - 14 and 9
    (a) 23   (b) – 23   (c) - 5   (d) 5
    Ans: (c) – 5

90. 3 is taken away from zero
    (a) 3   (b) – 3   (c) 0   (d) Not possible
    Ans: (d) Not possible

91. What will be the opposite of 3 km south?
    (a) 3 km east   (b) 3 km north   (c) 3 km north east   (d) 3 km west
    Ans: (b) 3 km north

92. Which of the following numbers set of numbers is in descending order?
    (a) 2, - 2, 1, -1   (b) 0, 1, 2,3   (c) 1, 0, - 1, -2   (d) -3, -2, -1, 0
    Ans: (c) 1, 0, - 1, -2

93. Which of the following is correct?
    (a) - 8 > - 7   (b) 1 < 0   (c) – 1 < 0   (d) - 2 > 4
    Ans: (c) – 1 < 0

94. Choose the appropriate number for blank : - 7 – (__) = 2
    (a) 5   (b) – 5   (c) 9   (d) – 9
    Ans: (d) – 9

95. What will be the multiple inverse of 8?
    (a) 8   (b) 1 / 8   (c) – 1 / 8   (d) 0
    Ans: (b) 1 / 8

96. Which of the following is not true?
    (a) 0 ÷ 2 = 0   (b) - 25 ÷ 5 = - 5   (c) 12 ÷ 0 = 12   (d) 4 ÷ 1 = 4
    Ans: (c) 12 ÷ 0 = 12

97. (– 8) x 10 x 9 is equal to
    (a) 27   (b) – 27   (c) – 720   (d) 720
    Ans: (c) – 720

98. The product of – 1 and – 40 is
    (a) 20   (b) – 20   (c) – 40   (d) 40
    Ans: (d) 40

99. 16 x 10 + 2 is equal to
    (a) 162   (b) 192   (c) 52   (d) 320
    Ans: (a) 162

100. Which of the following statement is true?
    (a) 7 ÷ 0 = 7   (b) 7 ÷ 0 = 0   (c) 7 ÷ 0 = 0 ÷ 7   (d) 0 ÷ 7 = 0
    Ans: (d) 0 ÷ 7 = 0