CLASS – VII: CHAPTER – 1
INTEGERS
By B Banerjee

1. Write the opposite of each of the following:
   (i) Increase in class strength (ii) going north (ii) A loss of Rs 1000

2. Indicate the following by integers:
   (i) 25⁰ above zero (ii) 5⁰ below zero (iii) 300 m above the sea level
   (iv) 250m below the sea level (v) A profit of Rs. 2000

3. Represent the following integers on number line:
   (i) –4   (ii) 7   (iii) –8

4. Write all the integers between:
   (i) –7 and 3   (ii) – 2 and 2   (iii) –4 and 0

5. How many integers are between:
        (i) –9 and –2   (ii) – 4 and 3   (iii) 5 and 12

6. Represent the following using integers with proper sign:
(a) 4.5 km above sea level (b) A loss of Rs 300   (c) Increase of population of 2 lakh

7. Find the sum of the pairs of integers: (a) – 6, – 4 (b) 3, – 4   (c)   +4, –2

8. Find the sum of –2 and –3, using the number line.

9. Subtract : (i) 3 from –4 (ii) –3 from –4

10. Using the number line, subtract : (a) 2 from –3 (b) –2 from –3.

11. How many integers are there between –9 and –2 ?

12. Calculate: 5 – 2 + 3 – 4 + 8 – 6 + 7 – 8 + 9 – 10

13. The sum of two integers is 47. If one of the integers is – 24, find the other.

14. Write the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 in this order and insert '+ 'or '–' between them to get
    the result (a) 5 (b) –3

15. Compute each of the following:
    (a) 30 + (–25) + (–10) (b) (–20) + (–5)
    (c) 70 + (–20) + (–30) (d) –50 + (–60) + 50
    (e) 1 + (–2) + (– 3) + (– 4) (f) 0 + (– 5) + (– 2)
    (g) 0 – (–6) – (+6) (h) 0 – 2 – (–2)

16. If we denote the height of a place above sea level by a positive integer and depth below the sea
    level by a negative integer, write the following using integers with the appropriate signs:
    (a) 200 m above sea level(b) 100 m below sea level
    (c) 10 m above sea level(d) sea level

17. Write the opposite of each of the following:

   (a) Decrease in size
   (b) Won the match
   (c) Profit of Rs.10
   (d) 1000 A.D.
   (e) Rise in water level
   (f) 60 km south
   (g) 10 m above the danger mark of river Ganga
   (h) 20 m below the danger mark of the river Brahmaputra
   (i) Winning by a margin of 2000 votes
   (j) Depositing Rs.100 in the Bank account
   (k) 20°C rise in temperature.

18. Temperature of a place at 12:00 noon was +5°C. Temperature increased by 3°C in first hour and decreased by 1°C in the second hour. What was the temperature at 2:00 pm?

19. Write the digits 0, 1, 2, 3, 9 in this order and insert '+' or '−' between them to get the result -7.

20. Write the integer which is its own additive inverse.

21. Write three positive and three negative integers whose sum is 7.

22. Write the integer which is 10 more than its additive inverse.

23. Write the integer which is 3 less than its additive inverse.

24. Write two integers whose sum is less than both the integers.

25. Write two distinct integers whose sum is equal to one of the integers.

26. Using number line, how do you compare
(a) two negative integers? (b) two positive integers? (c) one positive and one negative integer?

27. Observe the following : $1 + 2 − 3 + 4 + 5 − 6 − 7 + 8 − 9 =$

28. write a negative integer and a positive integer whose difference is 5.

29. Arrange the following integers in the ascending order : $−2, 1, 0, −3, 4, −5$

30. Arrange the following integers in the descending order : $−3, 0, −1, −4, −3, −6$
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31. Write two integers whose sum is 6 and difference is also 6.

32. Write five integers which are less than −100 but greater than −110.

33. Write four pairs of integers which are at the same distance from 1 on the number line.

34. The sum of two integers is 30. If one of the integers is −42, then find the other.

35. Sum of two integers is −80. If one of the integers is −90, then find the other.