## SATISH CHANDRA MEMORIAL SCHOOL

CLASS 7 INTEGERS

Q1. Write a pair of integers whose product is - $\mathbf{1 2}$ and there lies seven integers between them.

Q2. A water tank has steps inside it. A monkey is sitting on the first step. The water level is at the ninth step.
(i) He jumps 3 steps down and then jumps back 2 steps up. In how many jumps will he reach the water level?
(ii) After drinking water, he wants to go back. For these, he jumps 5 steps up and then jumps back 3 steps down in every move. In how many jumps will he reach back the top of the tank?

Q3. A shopkeeper earns a profit of Rs 2 by selling a pen and incurs a loss of 50 paise per pencil and loss of 15 paise per eraser while selling pencil and eraser of old stock .On a particular day, he earn a profit of Rs 10 . If he sold 10 pens and the number of pencils and eraser he sold in the ratio of $7: 10$, then find the number of pencils and eraser he sold on that day.

Q4.Find a pair of integers whose product is -21and whose difference is 10 .
Q5. Solve the following:
(i) $(-15) \times 8+(-15) \times 4$
(ii) $[\mathbf{3 2}+\mathbf{2 \times 1 7 + ( - 6 ) ] \div 1 5}$

Q6 The sum of two integers is 116 . If one of them is -79 , find the other integers.
Q7 Write down a pair of integers whose
(i) sum is $\mathbf{- 5}$
(ii) difference is $\mathbf{- 7}$
(iii) difference is $\mathbf{- 1}$
(iv) sum is 0

Q8 Fill in the blanks using < or >.
(a) $-3 \ldots \ldots$ - 4
(b) $6 \ldots \ldots$ - 20
(c) $-8 \ldots \ldots-2$
(d) $5 \ldots \ldots$ - 7

Q9 Question 4.

Using number line, find:
(i) $3 \times(-5)$
(ii) $8 \times(-2)$

Q10. Question 8.
If $a=-35, b=10 \mathrm{~cm}$ and $c=-5$, verify that:
(i) $\mathbf{a}+(\mathbf{b}+\mathbf{c})=(\mathbf{a}+\mathbf{b})+\mathbf{c}$
(ii) $\mathbf{a} \times(b+c)=\mathbf{a} \times \mathbf{b}+\mathbf{a} \times \mathbf{c}$

Q11. You have ₹ 500 in your saving account at the beginning of the month. The record below shows all of your transactions during the month. How much money is in your account after these transactions?

| Cheque No. | Date | Transactions description | Payment | Deposit |
| :---: | :---: | :---: | :---: | :---: |
| 384102 | $4 / 9$ | Jal Board | $₹ 120$ | $₹ 200$ |
| 275146 | $12 / 9$ | Deposit |  |  |
| 384103 | $22 / 9$ | LIC India | $₹ 240$ | $₹ 150$ |
| 801351 | $29 / 9$ | Deposit |  |  |

[NCERT Exemplar]
Q12. The given table shows the freezing points in ${ }^{\circ} F$ of different gases at sea level. Convert each of these into ${ }^{\circ} \mathrm{C}$ to the nearest integral value using the relations and complete the table $\mathrm{C}=59[\mathrm{~F}-32]$

| Gas | Freezing <br> point at sea <br> level $\left({ }^{\circ} \mathbf{F}\right)$ | Freezing <br> point at sea <br> level $\left({ }^{\circ} \mathbf{C}\right)$ |
| :--- | :---: | :---: |
| Hydrogen | -435 |  |
| Krypton | -251 |  |
| Oxygen | -369 |  |

(NCERT Exemplar)
Q13. Taking today as zero on the number line, if the day before yesterday is 17 January, what is the date on $\mathbf{3}$ days after tomorrow?


Q14 A green grocer had a profit of Rs. 47 on Monday, loss of Rs. 12 on Tuesday and loss of Rs. 8 on Wednesday. Find his net profit or loss in 3 days.

Q15.The temperature at noon was $10^{\circ} \mathrm{c}$ above zero. It descends at the rate of $2^{\circ} \mathrm{c}$ per hour until midnight, at what time would the temperature be $8^{0} \mathbf{c}$ below zero? What would be the temperature at midnight?

## CASE STUDY

1. In a competitive exam, 3 marks are given for every correct answer and 1 mark is deducted for every incorrect answer.Raju copied some answers from Reema and answered all the questions. He scored 20 marks though he got 10 correct answers. How many incorrect answers had he attempted? What values are promoted in the question?
2. In a quiz, Rs. 300 are awarded for every correct answer and a penalty of Rs. 75 is put for every incorrect answer.Madhuri answered 15 questions out of which only 6 answers were correct. How much money is earned by Madhuri in the quiz? If she distributes the money earned by her to poor children in the neighbourhood, what values are being promoted?
