|  |  | INDIAN S | OL AL W <br> Mathematics <br> eet DTQ - IN | L KABIR |
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| SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each) |  |  |  |  |
| Q1. | Akhil is standing in the middle of a bridge which is 20 m above the water level of a river. If a 35 m deep river is flowing under the bridge, then find the vertical distance between the foot of Akhil and bottom level of the river. |  |  |  |
| Q2. | Find the odd one out of the four options given below: <br> (a) $(-3,-6)$ <br> (b) $(+1,-10)$ <br> (c) $(-2,-7)$ <br> (d) $(-4,-9)$ |  |  |  |
| Q3. | Verify : $(-18) \times[(-6)+(-7)]=[(-18) \times(-6)]+[(-18) \times(-7)]$ |  |  |  |
| Q4. | If $\otimes, \ominus, O$, order of these | esent some inte | number line, | ite the descen |
| Q5. | A boy standing on the third stair on a staircase goes up by five more stairs. Which stair is he standing at now? At which step will he be after he comes down by 2 stairs? |  |  |  |
| Q6. | On the following number line, $(-4) \times 3$ and $(-18) \div 3$ are represented by the points |  |  |  |
| Q7. | Write a pair of integers whose product is - 15 and whose difference is 8 . |  |  |  |
|  |  |  |  |  |

## SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

Q8.
Water level in a well was 20 m below ground level. During rainy season, rain water collected in different water tanks was drained into the well and the water level rises 5 m above the previous level. The wall of the well is 1 m 20 cm high and a pulley is fixed at a height of 80 cm . Raghu wants to draw water from the well. Find the minimum length of the rope that he can use.


Q9. The table given below shows the elevations relative to sea level of four locations. Taking sea level as zero, answer the following questions:

| Location | Elevation (in m) |
| :--- | :---: |
| A | -180 |
| B | 1600 |
| C | -55 |
| D | 3200 |

(a) Which location is closest to sea level?
(b) Which location is farthest from sea level?
(c) Arrange the locations from the least to the greatest elevation.

Q10.
Evaluate:
(i) $[(-136) \div 4] \div(-2)$
(ii) $[(-90) \div(-45)]-144$
(iii) $38 \div[(-2)+1]$
(iv) $[(-6)+(-12)] \div[(-3)+2]$

Q11. Find the product using suitable property and state the property used:
(i) $(-2) \times(-607) \times(-5)$
(ii) $(-121) \times(-78)+(-121) \times(68)$
(iii) $(-16) \times 102$

Q12.
(i) Taking today as zero on the number line, if the day before yesterday is $17^{\text {th }}$ of January, what is the date 3 days after tomorrow?
(ii) Find the value by suitable rearrangement: $-456+221-544+79$

## LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

Q13. In a class test containing 15 questions, 4 marks are given for every correct answer and $(-2)$ marks are given for every incorrect answer.
(i) Sirisha attempts all questions but only 9 of her answers are correct. What is her total score?
(ii) One of her friends gets only 6 answers correct. What will be her score?

Q14.
Evaluate the following, using distributive property.
(i) $-39 \times 99$
(ii) $(-85) \times 43+43 \times(-115)$
(iii) $(-52) \times(-9)+109 \times(-52)$
(iv) $68 \times 19+68$

Q15.
A building has 25 floors above the ground level each of height 5 m . It also has 5 floors in the basement each of height 5 m . A lift in building moves at a rate of $1 \mathrm{~m} / \mathrm{s}$. If a man starts from 100 m above the ground, how long will it take him to reach at $4^{\text {th }}$ floor of basement?

| ANSWERS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q1. | 55 m | Q2. | (d) | Q4. | O, $\checkmark, \otimes$, |
| Q5. | 6th step | Q6. | D and G | Q7. | 5, - 3 and 3, - 5 . |
| Q8. | 17 m | Q9. | (i) $C$ (ii) $D$ (iii) $A<C<B<D$ | Q10. | (i) 17 <br> (ii) $(-142)$ <br> (iii) $(-38)$ <br> (iv) 18 |
| Q11. | (i)(-6070) <br> (ii) 1210 <br> (iii) $(-1632)$ | Q12. | (i) $23^{\text {rd }}$ January <br> (ii) $(-700)$ | Q13. | (i)24 (ii) 6 |
| Q14. | (i) $(-3861)$ <br> (ii) $(-8600)$ <br> (iii) $(-5200)$ <br> (iv) 1360 | Q15. | 2 minutes |  |  |

