DPP
DAILY PRACTICE PROBLEMS

Class : IXTH **Subject : MATHS**
Date : **DPP No. : 1**

THE WORLD OF NUMBERS

Multiple Choice Questions

Q 1. If you owe ₹20 and borrow ₹5 more, then you are in:
(a) debt of ₹ 25 (b) debt of ₹ 10
(c) debt of ₹ 15 (d) debt of ₹5

Q 2. A shopkeeper borrows ₹550 for his shop. The next day, he earns a profit of ₹2000. In the following week, he suffers a loss of ₹200. His final financial standing is:
(a) ₹ 250 in profit (b) ₹ 100 in debt
(c) ₹ 1250 in profit (d) ₹ 300 in profit

Q 3. Which of the following is not a rational number?
(a) $\sqrt{2}$ (b) $\sqrt{4}$
(c) $\sqrt{9}$ (d) $\sqrt{25}$

Q4. A rational number between $\frac{1}{2}$ and $\frac{1}{3}$ is:
(a) $\frac{1}{4}$ (b) $\frac{1}{12}$
(c) $\frac{5}{12}$ (d) $\frac{7}{12}$

Q5. The value of $5\frac{5}{6}+\frac{9}{5}-7\frac{3}{7}$ is:
(a) $\frac{41}{210}$ (b) $\frac{42}{210}$
(c) $\frac{47}{210}$ (d) $\frac{43}{210}$

Assertion-Reason Based Questions

The following questions are Assertion and Reason based questions. Two statements are given, one labelled as Assertion (A) and the other is labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.
(a) Both A and R are true, and R is the correct explanation of A .
(b) Both A and R are true, but R is not the correct explanation of A .
(c) A is true, but R is false.
(d) A is false, but R is true.

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Q6. Assertion (A) : Every integer is a rational number.
Reason (R) : Every integer ' n ' can be expressed in the form $\frac{n}{1}$.

Q7. Assertion (A) : Rational number lying between two rational numbers a and b is $\frac{a+b}{2}$.
Reason (R) : There is one rational number lying between any two rational numbers.

Very Short Answer Questions

Q8. Calculate the following using Brahmagupta's laws:
(i) $(-10) \times 9$
(ii) $-31 - 0$
(iii) $(-6) \times (-3)$
(iv) $(-36) \div 12$

Q9. Not all integers have reciprocals. Is this statement correct?

Q10. Which is the greatest negative integer?

Q 11. Write the integers - 11 and 7 in the form of $\frac{p}{q}$.

Q. 12. What number should be multiplied by $5\frac{3}{4}$ to get $3\frac{3}{5}$?

Q 13. Write one rational number between $\frac{4}{5}$ and $\frac{7}{13}$.

Q 14. Find one rational number between $-\frac{2}{5}$ and $-\frac{1}{5}$.

Short Answer Questions

Q 15. Solve the following
(i) $-\frac{2}{5}+\frac{1}{3}$
(ii) $\frac{7}{4}-\frac{2}{3}$
(iii) $\frac{4}{9} \times \left(-\frac{36}{5}\right)$
(iv) $\frac{5}{6} \div 8$
(v) $-\frac{4}{7}-\left(-\frac{6}{5}\right)$
(vi) $-4\frac{1}{3} \div 2\frac{1}{6}$

Q16. Show that $\left(\frac{5}{8}-\frac{6}{7}\right) \times \frac{1}{3} = \frac{5}{8} \times \frac{1}{3} - \frac{6}{7} \times \frac{1}{3}$

Q17. Find the rational number a such that: $-\frac{1}{5}\left(a+\frac{10}{3}\right) = -\frac{1}{5}a - \frac{2}{3}$

Q 18. Represent the rational numbers $\frac{2}{5}$, $-1\frac{1}{4}$ and $3\frac{2}{3}$ on a single number line.

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Q. 19. A fruit seller earns ₹$4\frac{1}{2}$ per apple. If he earns ₹864 on a particular day, how many dozens of apples did he sell?

Q. 20. Each guest is served $1\frac{3}{5}$ litres of juice. If 40 litres of juice is available, how many guests can be served?

Q. 21. Kavya had $4\frac{1}{2}$ cups of ice cream left in refrigerator. She decided to serve it to Priyanka and her 5 friends. If she divided the ice cream equally, how much would each child get?

Q. 22. A car travels $5\frac{1}{4}$ km north, then $\frac{1}{2}$ km west and $4\frac{3}{8}$ km north. Find the total distance travelled (in km)?

Q23. Find three rational numbers between $\frac{5}{7}$ and $\frac{8}{7}$.

Q24. Find three rational numbers between 3 and 3.5.

ANSWER KEY

1. (a) 2. (c) 3. (a) 4.(c) 5.(d) 6.(a) 7.(c)
8. $(i) -90$ (ii) -31 (iii) 18 (iv) -3 9. Yes 10. -1
11. $-11 = -\frac{11}{1}; 7 = \frac{7}{1}$ 12. $\frac{72}{115}$ 13. $\frac{87}{130}$ 14. $-\frac{3}{10}$
15. (i) $-\frac{1}{15}$ (ii) $\frac{13}{12}$ (iii) $-\frac{16}{5}$ (iv) $\frac{5}{48}$ (v) $\frac{22}{35}$ (vi) -2
17. Every rational number a satisfies the equation.
19. 16 dozen
20. 25
21. $\frac{3}{4}$ cup
22. $10\frac{1}{8}$ km
23. $\frac{13}{14}, \frac{23}{28}, \frac{29}{28}$
24. 3.25, 3.125, 3.375

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