ANANDALAYA
PERIODICTEST – 1
Class – VIII

Subject: Mathematics   M.M: 50
Date   : 15/07/2019   Time: 2 hours

General Instructions:
i)   All questions are compulsory.
ii)   This question paper contains 23 questions.
iii)   Questions 1 – 7 in Section A are multiple choice type questions carrying 1 mark each.
iv)   Questions 8 – 13 in Section B are short-answer type questions carrying 2 marks each.
v)   Questions 14 – 18 in Section C are short -answer type questions carrying 3 marks each.
vi)   Questions 19 – 22 in Section D are long-answer type questions carrying 4 marks each.

SECTION-A

1. The rational number which is its own reciprocal: (1)
    (a) 0   (b) -1 and 1 both   (c) 1 but not -1   (d) – 1 but not 1

2. The value of x in the equation $14 x – 5 = 16$ is   (1)
    (a) $\frac{3}{2}$ (b) $\frac{2}{3}$ (c) $\frac{3}{2}$ and $1\frac{1}{2}$ both (d) 21

3. The multiplicative inverse of $-2 \times \frac{-4}{7}$ is   (1)
    (a) $2 \times \frac{-4}{7}$ (b) $2 \times \frac{4}{7}$ (c) $\frac{-1}{2} \times \frac{-7}{4}$ (d) $2 \times \frac{-7}{4}$

4. The value of y in the following equation $3y – 3 = 22 – 2y$ (1)
    (a) 25   (b) 19   (c) 3   (d) 5

5. The property under multiplication used in following mathematical statement   (1)
    $\frac{-4}{5} \times \frac{7}{-4} = \frac{7}{-4} \times \frac{-4}{5}$ is:
    (a) Multiplicative identity property   (b) multiplicative inverse property
    (c) commutative property of multiplication   (d) none

6. If ` 90 is divided between Ram and Shyam in the ratio 4:5, then their share is: (1)
    (a) ` 50 and ` 40   (b) ` 40 and ` 50
    (c) ` 45 and ` 36   (d) None of these

7. The reciprocal of a positive rational number is: (1)
    (a) always positive   (b) sometimes positive sometimes negative
    (c) always negative   (d) cannot say

SECTION-B

8. Solve: $8x – 10 = –3 (x – 15)$ (2)

9. Multiply $\frac{6}{13}$ by the reciprocal of $\frac{-27}{26}$.   (2)

10. The difference between two whole numbers is 66.The ratio of two numbers is 2:5. What are the   (2)
    two numbers?

11. Subtract additive inverse of $\frac{-5}{4}$ from $\frac{7}{8}$. (2)

12. The number of boys and girls in a class are in the ratio 7:5. The number of boys is 8 more than the number of girls. What is the total class strength? (2)

13. Simplify : $\left(\frac{35}{9} \div \frac{7}{3}\right) - \left(\frac{3}{5} \times \frac{-10}{27}\right)$ (2)

SECTION-C

14. Using appropriate properties find the value of: (3)

$$-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$$

15. Solve the following linear Equation: $y - \frac{y-1}{2} = 1 - \frac{y-2}{3}$ (3)

16. Simplify: (3)

$$\left(\frac{3}{-4} \div \frac{9}{16}\right) - \left(\frac{-4}{7} \div \frac{8}{21}\right)$$

17. A rational number is such that when you multiply it by $\frac{5}{2}$ and add $\frac{2}{3}$ to the product, you get $\frac{-7}{12}$. What is the number? (3)

18. The organizers of an essay competition decide that a winner in the competition gets ` 100 and a participant who does not win gets a prize of ` 25. The total prize money distributed is ` 3,000. Find the number of winners, if the total participant is 63. (3)

SECTION-D

19. Find six rational number between $\frac{-3}{5}$ and $\frac{-4}{7}$. (4)

20. Hasan buys two kinds of cloth materials for school uniforms, shirt material that costs him ` 50 per metre and trouser material that costs him ` 90 per metre. For every 3 metres of shirt material he buys 2 metres of trouser material. He sells the materials at 12% and 10% profit respectively. His total sale is ` 36,600. How much trouser material did he buy? (4)

21. The digits of a two-digit number differ by three. If the digits are interchanged and the resulting number is added to the original number, we get 143. What can be the original number? (4)

22. Represent $\frac{-3}{4}$, $\frac{3}{5}$, $\frac{7}{4}$, $\frac{-5}{4}$, $\frac{9}{4}$ and $\frac{-11}{5}$ on one number line. (4)