Duration : 1 hr 20 mins.   **M.M. : 40**
No. of printed pages : 2

General Instructions :
(i)   **All the questions are compulsory.**
(ii) **Attempt the paper neatly.**
(iii) **There is no overall choice. However internal choice has been given in one question of**
       1 mark, one question of 2 marks, two questions of 3 marks each and one question of 4 marks.
(iv) **Draw a column on the right side of the answer sheet for rough work.**

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SECTION – A   **(1 × 10 = 10)**
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I. Choose the correct option :

1. 6 more than five times y is written as

    a) $5y + 6$ b) $5 + 6y$ c) $6(5 + y)$ d) $5(6 + y)$

2. The ratio of the least prime number to the least odd composite number is

    a) $1 : 2$ b) $2 : 3$ c) $2 : 9$ d) $1 : 4$

3. The perimeter of a square with side of length p units is given by

    a) $4 + p$ b) $4p$ c) $p + 2$ d) $8p$

4. Which of the following is the equivalent ratio of 12:18?

    a) $2 : 3$ b) $6 : 6$ c) $9 : 3$ d) $24 : 54$

5. The coefficient of x in $3x + 4 = 7$ is
    a) 4   b) 3   c) x d) 7

II. Fill in the blanks :

6. The ratio of the number of days to the number of months in a non-leap year is _____.

7. If $4q = 12$, the value of q is _____.

8. The distance (in km) travelled in t hours at a constant speed of 30 km per hour is_____.

III. Answer the following :

9. Write the simplest form of the ratio $225 : 15$.

10. If there are 30 balls in a box, write the total number of balls in terms of the number of boxes.
    (Use b for the number of boxes.)

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OR
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Tanya bought some chocolates. She gave n chocolates to her brother; still 3 chocolates were left with her. How many chocolates did she buy?

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SECTION – B   **(2 × 3 = 6)**
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11. Give expressions for the following cases :

    a) z multiplied by -2 b) 4 times y subtracted from 3

12. Which is greater :

    $5 : 6$ or $3 : 4$

OR

    Fill in the missing numbers. $\dfrac{14}{21} = \dfrac{}{3} = \dfrac{6}{}$

13. Find the ratio of 70 cm to 1.5 m.

SECTION – C   **(3 × 4 =12)**

14. Verify by substituting that $y = 7$ is the solution of $3y - 4 = 17$.

15. Is the following statement true?

    $50 \text{ cm} : 2 \text{ m} = 60 \text{ cm} : 240 \text{ cm}$

OR

    If $4 : 5 :: x : 45$, find the value of x.

16. Solve : $5x - 4 = 16$

OR

Solve : $\dfrac{x}{2} + 1 = 5$

17. Divide ₹ 1400 among A, B and C in the ratio of $2 : 3 : 5$.

SECTION – D   **(4 × 3 =12)**

18. There are 55 people working in an office. If the number of females is 30 and the remaining are males, find the ratio of :

    a) Number of males to the number of females.

    b) Total number of people to the number of males.

    c) Number of females to the total number of people.

19. Let Rahul's age be x years

    a) What will be his age after 7 years?

    b) What was his age 2 years ago?

    c) Rahul's grandfather is 5 times his age. What is the age of his grandfather?

    d) Rahul's grandmother is 3 years younger than his grandfather. What is his grandmother's age?

20. If a labourer earns ₹ 1980 in 12 days. How much does he earn in 7 days?

OR

Karan made 48 runs in 6 overs and Vikas made 56 runs in 8 overs. Who made more runs per over and by how much?