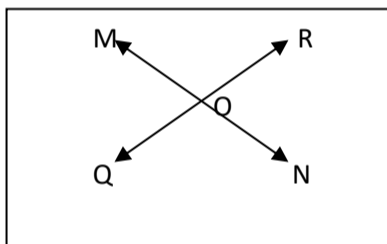### Group-A

Read the following stems and answer ~~any three~~ of the following questions: ~~10×3=30~~

1. 21, 63 and 7832 are natural numbers and <u>508940732030</u> is the voter id number of a person.

   (a) Determine whether the pair (63, 21) are co-prime or not. Ex: 1.2-2(a,b,c)   2

   b) Write the given voter id number in words following international system. Check the 3rd number whether it is divisible by

   4 or not, using divisibility rule of 4.   Ex: 1.2-3(b)
   2+2

   c) Determine the place value of the significant digits of the greatest number formed by using digits 9, 5, 4, 7, 3, 8 only once.   4
   Ex1.1: 1(3),5(a,b)

2.   (–12), (+8), (+200), (–350), (–170), (–460), (+310) are integers.

   a) What do you mean by additive inverse and multiplicative inverse?Ex:3.3   2

   b) Arrange all negative integers greater than (–12) in increasing order using relational symbol.Ex:3.1-7(a,b,c)
      4

   c) Using number line add 1st and 2nd integer of the stem.Ex:3.2-1(a,b,c,d)   4

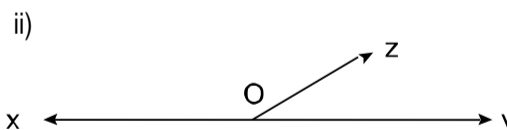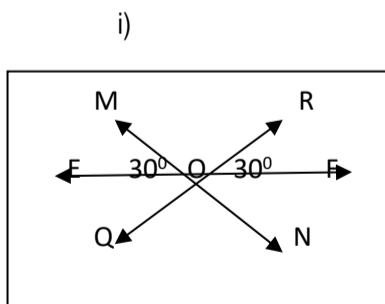3. Observe the figure

   In the above figure MN and QR are two straight lines intersect each other at the point O.

   (a) How many angles are formed at the point O? Write their name. Definition of vertical opposite angles
      2

   (b) Prove that, $\angle MOQ = \angle RON$ and $\angle MOR = \angle QON$ Theorem-2
      4

   (c) Prove that, bisectors of vertically opposite angles are lies in same straight line. Ex:6.1-4
      4

4. Observe the figure: i)   ii)

   a) Write the characteristics of line, line segment and ray. Pg 125-Table
2
   b) How many rays are there in fig. (i) and what are they? Determine the value of $\angle MOR$ and $\angle QOE.$ Pg 125- Activity 1
2+2
   c) Using fig. (ii) Prove that, $\angle XOZ + \angle ZOY = 2\text{ right angles or }180^0$ Theorem 1
4

Group-B

Choose the best answer and write in answer script.   1×20=20

1. 1 billion = _____ lacs.
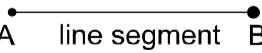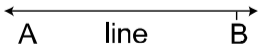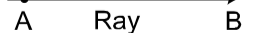
a) 1   b) 10   c) 1000   d) 10000

2. Which pair of the following is co-prime?
    a) 21, 14   b) 10, 15   c) 27, 12   d) 9, 16

3. The number 5842 is divisible by which one of the following?
    a) 2   b) 3   c) 6   d) 9

4. Which one of the following pair is both prime and co-prime?
    a) 13, 17   b) 22, 33   c) 9, 27   d) 19, 21

5. How many prime numbers are there in 30 to 40?
    a) 3   b) 4   c) 5   d) 6

Answer the following questions 6 and 7 on the basis of the information given below:

(−12), (9) are two integers.

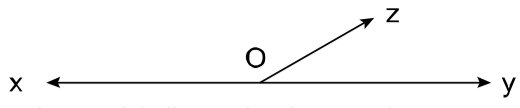6. What is additive inverse of (-12)?

    a) -12   b) 0   c) 12   d) $\pm$ 12

7. What is the sum of given two integers?

    a) -3   b) 3   c) -21   d) 25

8. Which one of the following number is divisible by 4?

    a) 3542   b) 4184   c) 5274   d) 200750

9. What is the intrinsic value of 8 in 80709?

    a) 8   b) 800   c) 8000   d) 80000

10. Which one of the following is integer?

    a) 2.5   b) 2   c) $\dfrac{2}{5}$ d) $1\dfrac{2}{3}$

11. Which one of the following is the HCF of 11 and 15?
    a) 1   b) 2   c) 3   d) 4

12. What is called the numbers with (-) sign?
    a) Positive   b) non positive   c) absolute   d) negative

13. (−6) + (−2) =?
    a) −7   b) −6   c) −8   d) 9

14. Which one of the following is additive inverse of -5?

    a) 5   b) −5   c) $\dfrac{1}{5}$ d) 5^{-1}

15. Which one of the following is the sum of −9 and its additive inverse?
a) 9   b) −18   c) 0   d) 18

16. What is the preceding number of '0'?

    a) −1   b) 0   c) 1   d) +1

17.   i) 8535 is divisible by 3.

    ii) 2 is even prime number

    iii) 31, 43 is co-prime number

    Which one is correct?

    a) i and ii   b) i and iii   c) ii and iii   d) i, ii and iii

18.   What is the measure of the vertically opposite angle of 37^0?

    a) 53^0 b) 37^0 c) 127^0 d) 143^0

19.   i. A   line segment   B

    ii. A   line   B

    iii. A   Ray   B

    Which one is correct?

    a) i and ii   b) ii and iii   c) i and iii   d) i, ii and iii

20.

xy is a straight line and *oz* is a ray, then $\angle xoz + \angle yoz = ?$

a) 90º   b) 100º   c) 180º   d) 360º