I. Objective Questions:

Q1. Which of the following statements are true?

A. The smallest integer is zero.

B. The opposite of zero is zero.

C. Zero is not an integer.

D. 0 is larger than every negative integer.

E. The absolute value of an integer is greater than the integer.

F. A positive integer is greater than its opposite.

G. Every negative integer is less than every natural number.

H. 0 is the smallest positive integer.

I. The sum of a number and its opposite is zero.

J. The sum of two negative integers is a positive integer.

K. The sum of a negative integer and a positive integer is always a negative integer.

L. The successor of – 1 is 1.

M. The sum of three different integers can never be zero.

II. Short Answer Questions:

Q1. Write the opposite of each of the following:

(i) Increase in population

(ii) Depositing money in a bank

(ii) Going North

(iv) A loss of Rs 1000

(v) 25

(vi) – 15

Q2. Indicate the following by using integers:

(i) 25^{o} above zero

(ii) 5^{o} below zero

(iii) 3km above sea level

(iv) 2km below level

Q3. Mark the following integers on a number line:

(i) -4

Q4. Write all integers between:

(i) – 7 and 3

Q5. Write the following integers in increasing order:

(i) – 8, 5, 0, -12, 1, -9, 15

(ii) – 106, 107, – 320, – 7, 185

Q6. Write the following integers in decreasing order:

(i) – 15, 0, -2, -9, 7, 6, -5, 8

(ii) -154, 123, -205, -89, -74

Q7. Using the number line, write the integer which is:

(i) 4 more than – 9

Q8. Write the absolute value of each of the following:

(i) 0

(ii) – 248

(iii) a – 7, if a is greater than 7

(iv) a + 4, if a is greater than -4

Q9. Which of the following is false:

(i) |4 – 2| = |4| – |2|

(ii) |(-2) + (-4)| = |-2| + |-4|

Q10. Find an integer x such that

(i) x + 1 = 0

(ii) – 3 + x = 0

(iii) x + (-8) = 0

Q11. Find the value of:

(i) – 27 – (- 23)

(ii) – 17 – 18 – (-35)

Q12. Subtract the sum of – 5020 and 2320 from – 709.

Q13. The sum of two integers is 238. If one of the integers is – 122, determine the other.

Q14. Replace * by < or > in each of the following to make the statement true:

(i) (-6) + (-9) * (-6) – (-9)

(ii) (-12) – (-12) * (-12) + (-12)

(iii) (-20) – (-20) * 20 – (65)

Q15. (–12) × (–9) – 6 × (–8) is equal to

(a) 156 (b) 60 (c) −156 (d) – 60