1.Fill in the blanks:

(i) The largest number of 5 digits is ……. and the smallest number of 6-digits is …….

(ii) The difference between the smallest number of four digits and the largest number of three digits = …….. – ……. = …….

(iii) Four lakhs sixty-seven thousand three hundred six.

= …… (In numeral form)

= …… (In International System)

= ……. (In International numeration)

(iv) Thirteen lakhs forty-five.

= ……. (In numeral form)

= ……. (In International System)

= ……. (In International numeration)

(v) On subtracting one from the smallest four-digit number, we get ……. which is the ……. three-digit number.

2.Choose the correct answer.

i)Which is the smallest factor of 2314?

a) 2314 b) 1 c) 2 d) 1152

ii) Which is the smallest odd composite number?

a) 1 b) 3 c) 9 d) 15

iii) Which of the following is divisible by 2 but not by 4?

a) 102 b) 228 c) 340 d) 556

iv). Find the smallest number which, when divided by 12, 15, 18, 24 and 36 leaves no remainder.

a) 360 b)720 c) 180 d) 480

v). Find the smallest number which, when increased by one is exactly divisible by 12, 18, 24, 32 and 40.

a) 1439 b)1340 c)650 d) 780

vi). The product of two numbers is 19,200 and their H.C.F. is 40. Find their L.C.M.

a)380 b)480 c)680 d)160

3. Write 428140625 by placing the commas according to International System.

4. Take two digits 4 and 5. The smallest 4-digit number using the digits equal number of times is

a) 4455 b) 5544 c) 5454 d) 4545

5.Form the largest number with the digits 2, 3, 5, 9, 6 and 0 without repetition of any digit.
6. Write the smallest and the greatest numbers of 4 digits without repetition of any digit.
7.Write the cardinal number of
F = {whole numbers from 8 to 14}
8. Solve the following
i) 2y – 5 = – 11
ii) 5y – 3.5 = 10

9. In an election two candidates A and B are the only contestants. If candidate A scored 932567 votes and candidate B scored 900235 votes, by how much margin did A win or lose the election?
10. Starting from the greatest 5-digit number, write the previous five numbers in descending order.
11. Starting from the smallest 7-digit number, write the next four numbers in ascending order.
12. By re-arranging the given numbers, evaluate:
i)2 x 487 x 50
ii)25 x 444 x 4
13. Evaluate using properties:
i) 548 x 98 ii) 924x997 iii) 3002x 723
13. Add:
i) 259 and 214 ii) -528 and -243 (iii) -623 and 326
14. Subtract:
(i) – 123 from 453 (ii) -78 from – 12
(iii) 329 from – 124 (iv) -222 from 0
15. In each case, arrange the given integers in ascending order, using a number line:
(i) -8, 0, -5, 5, 4, -1 (ii) 3, -3, 4, -7, 0, -6, 2

16. Find the H.C.F. of:
(i) 5 and 8 (ii) 24 and 49
(iii) 40, 60 and 80 (iv) 48, 84 and 88
(v) 12, 16 and 28
17.The H.C.F. and the L.C.M. of two numbers are 50 and 300 respectively. If one of the numbers is 150, find the other one.
18.The product of two numbers is 432 and their L.C.M. is 72. Find their H.C.F.
19. Write the degree of each of the following polynomials:

(i) x + x2 (ii) 5x2 – 7x + 2
(iii) x3 – x8 + x10 (iv) 1 – 100x2
20. State the numeral coefficient of the following monomials:
(i) 5xy (ii) abc (iii) 5pqr (iv) -2x / y
21. Without making any actual division show that 2300023 is divisible by 23
22. Without making any actual division, show that each of the following numbers is divisible by 11
(i) 11011 (ii) 110011 (iii) 11000011
23. Without actual division, show that each of the following numbers is divisible by 8
(i) 1608 ii) 56008 (iii) 240008
24. Find which of the following numbers are divisible by 2:
(i) 352 (ii) 523 (iii) 496 (iv) 649
25. Find which of the following numbers are divisible by 10:
(i) 9990 (ii) 0 (iii) 847 (iv) 8976
26. Find which of the following numbers are divisible by 11:
(i) 5918 (ii) 68,717 (iii) 3882 (iv) 10857
27. In each of the following numbers, replace M by the smallest number to make resulting number divisible by 3:
(i) 64 M 3 (ii) 46 M 46 (iii) 27 M 53
28. One pencil costs Rs 2 and one fountain pen costs Rs 15. What is the cost of x pencils and y fountain pens?
29. Think of a number. Multiply by 5. Add 6 to the result. Subtract y from this result. What is the result?
30. The number of rooms on the ground floor of a building is 12 less than the twice of the number of rooms on first floor. If the first floor has x rooms, how many rooms does the ground floor has?

31.One-fourth of a number add to two-seventh of it gives 135; find the number.
32. A number is increased by 12 and the new number obtained is multiplied by 5. If the resulting number is 95, find the original number.
33.A number is increased by 26 and the new number obtained is divided by 33. If the resulting number is 18; find the original number.
34. The age of a man is 27 years more than the age of his son. If the sum of their ages is 47 years, find the age of the son and his father.
(v) {Negative natural numbers} and {50th day of a month}

35. State, whether the following are finite or infinite sets:
(i) {2, 4, 6, 8, …… 800}
(ii) {……, -5, -4, -3, -2}
(iii) {x: x is an integer between -60 and 60}
(iv) {No. of electrical appliances working in your house}
(v) {x: x is a whole number greater than 20}
36. For each statement, given below, write True or False:
(i) {…., -8, -4, 0, 4, 8}is a finite set
(ii) {-32, -28, -24, -20, ……., 0, 4, 8, 16} is an infinite set
(iii) {x: x is a natural number less than 1} is the empty set
(iv) {Whole numbers between 15 and 16} = {Natural numbers between 5 and 6}
(v) {Odd numbers divisible by 2} is the empty set

37. State, giving reasons, which of the following pairs of sets disjoint sets and which are overlapping sets:
(i) A = {Girls with ages below 15 years} and B = {Girls with ages above 15 years}
(ii) C = {Boys with ages above 20 years} and D = {Boys with ages above 27 years}
(iii) A = {Natural numbers between 35 and 60} and B = {Natural numbers between 50 and 80}
(iv) P = {Students of class IX studying in I.C.S.E. Board} and Q = {Students of class IX}
(v) A = {Natural numbers of multiples of 3 and less than 30} and B= {Natural numbers divisible by 4 and between 20 and 45}
38. Write the cardinal number of each of the following sets:
(i) A = {0, 1, 2, 4}
(ii) B = {-3, -1, 1, 3, 5, 7}
(iii) C = {}
(iv) D = {3, 2, 2, 1, 3, 1, 2}
(v) E = {Natural numbers between 15 and 20}
39.How many perpendicular bisectors are there for a line segment of length 12 cm.
40. How many lines can pass through two points in a plane?