

I. Choose the correct answer:

10x1=10

1. The difference between two successive odd numbers is \_\_\_\_  
a. 1            b. 2            c. 3
2. A \_\_\_\_\_ is a number that divides the given number exactly.  
a. Prime        b. natural      c. factor
3. Every \_\_\_\_\_ has one or two branches.  
a. internode    b. node        c. expression
4. \_\_\_\_\_ is the price at which an item is sold.  
a. Discount    b. C.P         c. S.P.
5. 'Overhead expenses' is always included in \_\_\_\_\_.  
a. S.P         b. C.P         c. Profit.
6. The only even prime number is \_\_\_\_\_      a. 6    b. 2    c. 4
7. If SP = ₹ 120, CP = ₹ 100, then profit = \_\_\_\_\_.  
a. ₹10        b. ₹ 20        c. ₹ 220
8. A pair of prime numbers whose difference is 2 is called as \_\_\_\_\_.  
a. Co- Primes      b. Twin primes      c. Even primes
9. The HCF of 17 and 18 is \_\_\_\_\_.  
a. 17            b. 18            c. 1
10. Discount = \_\_\_\_\_.  
a. M.p - S.p      b. Sp - M.p        c. S.p = M.p

II. Write True or False:

5x1=5

11. The LCM of two Co- primes is the sum of the numbers.
12. If a number is divisible by 6, then it must be divisible by 3.
13. The smallest three digit composite number is 111.
14. There is no profit or loss when C.P > S.P.
15. The numbers 57 and 69 are co - primes.

III. Match the following:

5x1=5

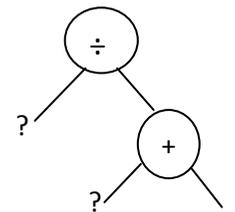
- |                          |   |                         |
|--------------------------|---|-------------------------|
| 16. M.R.P                | - | 3a-b                    |
| 17. Divisible by 10      | - | over head expenses      |
| 18. Tag price            | - | Maximum Retail price    |
| 19. Algebraic expression | - | Ones place is only zero |
| 20. C.P                  | - | Marked price            |

IV. Answer any ten of the following:

10x3=30

21. The sum of any three odd natural numbers is odd. Justify this statement with an example.
22. Find the prime factorisation of 60 by Factor Tree Method.
23. Write the missing numbers in the tree

$$65 \div (9+3)$$



24. Convert the following algebraic expressions into tree

Diagram:  $(9 \times 5) + (10 \times 12)$

25. Anitha marked her home product of pickle as ₹ 400 per pack. But she sold it for only ₹ 375 per pack. What was the discount offered by her per pack?

26. A school purchases some furniture and gets the following bill.

Cash Bill

Mullai Furniture Mart, Vellore

Bill No:924

Date: 25.11.2019

S.no	Items	Quantity	Rate in (₹)	Amount in (₹)
1.	Sitting bench	50	1200	60,000
2.	Writing Desk	50	1500	75,000
3.	Chair	10	950	9,500
	Total			1,44,500

i. What is the name of the store?

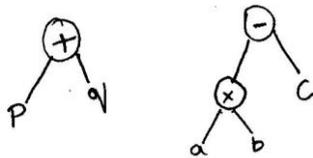
ii. What is the serial number of the bill?

iii. What is the cost of a chair?

27. Find the Sp if C.P = ₹ 130 and profit = ₹ 15

28. Somu bought a second hand bike for ₹ 25,000 and spent ₹ 2,000 on its repair. He sold it for ₹ 30,000. Find his profit or loss.

29. Convert Tree diagrams into Algebraic expressions.



30. The LCM of two numbers is 432 and their HCF is 36. If one of the number is 108. Then find the other number.

31. Find the HCF of 36 and 48 using division method.

32. Valarmathi sold her pearl set for ₹ 40,000 at a profit of ₹ 10,000. Find the cost price of the pearl set.

V. Answer any five of the following:

5x4=20

33. Convert the following question into tree diagrams:

In a cycle factory 1500 bicycles were manufactured on a day. Draw a tree diagram to the number of bicycle produced in 10 days.

34. Convert the following numerical expressions into Tree diagrams:  $[7x(9+2)] + [(6-3) + 3]$

35. A shopkeeper buys three articles for ₹ 325, ₹ 450 and ₹ 510. He is able to sell them for ₹ 350, ₹ 425 and ₹ 525 respectively. Find the gain or loss to the shopkeeper on the whole.

36. For which of the numbers, from  $n = 2$  to 6, is  $2n-1$  a prime?

37. What is the greatest possible volume of a vessel that can be used to measure exactly the volume of milk in cans? (in full capacity) of 80 litres, 160 litres and 120 litres?

38. i. Find the profit if  $cp = ₹ 1,120$  and  $Sp = ₹ 1,140$

ii. Find the loss if  $Cp = ₹ 500$  and  $Sp = ₹ 400$ .

39. Find the HCF and LCM of 30, 40, 60 using prime factorization method.

VI. FBT

2x5=10

40. List out the prime numbers represented by the dates in the month of November.

41. i. Which is greater S.P or M.P?

ii. Arivu purchased 2kg of brinjal at ₹ 12 per kg, 3 kg of onion at ₹ 10 per kg. Find out the total amount paid by him.