

I. Choose the correct answer:

1. b. 2
2. c. factor
3. b. node
4. c. S.P.
5. C.P
6. 2
7. b. ₹ 20
8. b. Twin primes.
9. c. 1
10. a. M.p - S.p

II. Write True or False:

11. True
12. Ture
13. False
14. False
15. False

III. Match the following:

16. Maximum Retail price
17. Ones place is only zero
18. Marked price
19. 3a-b
20. over head expenses

Marks-80
Time-2½hrs
10x1=10

5x1=5

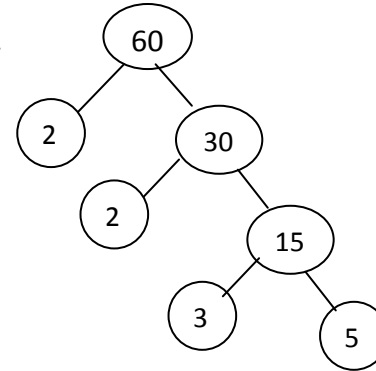
5x1=5

IV. Answer any ten of the following:

10x3=30

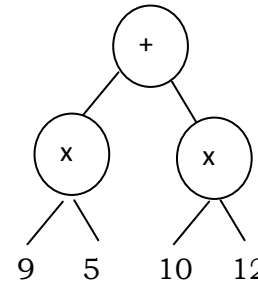
21. $1 + 3 + 5 = 9$ (odd) Therefore sum of any 3 odd numbers is Odd.

22.



23. 65, 9, 3

24. Convert the following algebraic expressions into tree



25. M.P= ₹ SP = ₹ 375 per pack. Therefore discount = MP- SP
₹25

i. Mullai Furniture Mart, Vellore.

ii. 924

iii. 950.

27. C.P = ₹ 130 and profit = ₹ 15 SP = CPT profit.

$$₹ 130 + ₹ 15 = ₹ 145$$

28. CP = ₹ 25,000 Repair charges = ₹ 2,000

Total Cost Price = ₹ 27,000.

SP = ₹ 30,000. Therefore Profit = SP - CP = ₹ 3,000.

$$\begin{array}{r} \text{₹}30,000 \\ \text{₹}27,000 \\ \hline \text{₹}3,000 \end{array}$$

29. Convert Tree diagrams into Algebraic expressions.

- i. $p + q$ ii. $Ab - c$

30. $108 \times \text{other number} = 432 \times 36$

Other number = $(432 \times 36) \div 108 = 144$.

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

$$\begin{array}{r|l} 2 & 36 \\ \hline 2 & 18 \\ 3 & 9 \\ 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 48 \\ \hline 2 & 24 \\ 2 & 12 \\ 2 & 6 \\ 3 & 3 \\ \hline & 1 \end{array}$$

32. SP = ₹ 40,000 profit ₹ 10,000.

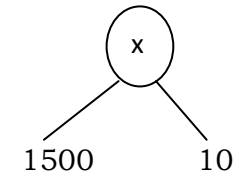
CP = SP - Profit; ₹ 40,000 - ₹ 10,000 = ₹ 30,000.

V. Answer any five of the following:

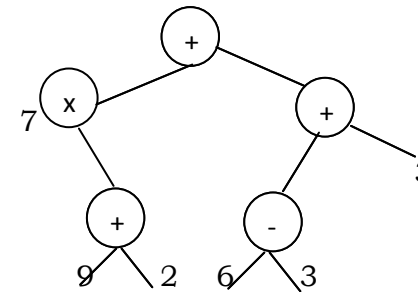
5x4=20

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: $[7 \times (9+2)] + [(6-3) + 3]$



35. Total CP = ₹ 325 + ₹ 450 + ₹ 510 = ₹ 1285.

Total SP = ₹ 350 + ₹ 425 + ₹ 525 = ₹ 1300

Therefore profit = SP - CP = ₹ 1300 - ₹ 1285 = ₹ 15.

36. $2n - 1 \rightarrow n=2 = 2(2)-1= 3$ is a prime

$n=3 = 2(3)-1= 5$ is a prime

$n=4 = 2(4)-1= 7$ is a prime

$n=5 = 2(5)-1= 9$ is a composite

$n=6 = 2(6)-1= 11$ is a prime

When $n = 2, 3, 4, 6$ $2n - 1$ is prime.

$$\begin{array}{r}
 37. \quad 2 \overline{) 80} \\
 \underline{2} \\
 2 \overline{) 40} \\
 \underline{2} \\
 2 \overline{) 20} \\
 \underline{2} \\
 2 \overline{) 10} \\
 \underline{2} \\
 5 \overline{) 5} \\
 \underline{5} \\
 1
 \end{array}
 \quad
 \begin{array}{r}
 2 \overline{) 160} \\
 \underline{2} \\
 2 \overline{) 80} \\
 \underline{2} \\
 2 \overline{) 40} \\
 \underline{2} \\
 2 \overline{) 20} \\
 \underline{2} \\
 2 \overline{) 10} \\
 \underline{2} \\
 5 \overline{) 5} \\
 \underline{5} \\
 1
 \end{array}
 \quad
 \begin{array}{r}
 2 \overline{) 120} \\
 \underline{2} \\
 2 \overline{) 60} \\
 \underline{2} \\
 2 \overline{) 30} \\
 \underline{2} \\
 3 \overline{) 15} \\
 \underline{3} \\
 5 \overline{) 5} \\
 \underline{5} \\
 1
 \end{array}$$

$$\begin{aligned}
 80 &= 2 \times 2 \times 2 \times 2 \times 5 \\
 160 &= 2 \times 2 \times 2 \times 2 \times 2 \times 5 \\
 120 &= 2 \times 2 \times 2 \times 3 \times 5
 \end{aligned}$$

$$\text{HCF} = 2 \times 2 \times 2 \times 5 = \text{Ans: } 40$$

$$38. \text{ i. profit} = ₹ 1,140 - ₹ 1,120 = 20$$

$$\text{ii. Loss} = ₹ 500 - ₹ 400 = ₹ 100$$

$$\begin{array}{r}
 39. \quad 3 \overline{) 30} \\
 \underline{3} \\
 2 \overline{) 10} \\
 \underline{2} \\
 5 \overline{) 5} \\
 \underline{5} \\
 1
 \end{array}
 \quad
 \begin{array}{r}
 2 \overline{) 40} \quad 2 \overline{) 60} \\
 \underline{2} \quad \underline{2} \\
 2 \overline{) 20} \quad 2 \overline{) 30} \\
 \underline{2} \quad \underline{2} \\
 2 \overline{) 10} \quad 3 \overline{) 15} \\
 \underline{2} \quad \underline{3} \\
 5 \overline{) 5} \quad 5 \overline{) 5} \\
 \underline{5} \quad \underline{5} \\
 1 \quad 1
 \end{array}
 \quad \text{HCF} = 2 \times 5 = 10$$

$$\begin{array}{r}
 \text{LCM} = 2 \overline{) 30, 40, 60} \\
 \underline{2} \\
 5 \overline{) 15, 20, 30} \\
 \underline{5} \\
 3 \overline{) 3, 4, 6} \\
 \underline{3} \\
 2 \overline{) 1, 4, 2} \\
 \underline{2} \\
 1 \overline{) 1, 2, 1} \\
 \underline{1} \\
 1, 1, 1
 \end{array}$$

$$\text{LCM} = 2 \times 5 \times 3 \times 2 \times 2 = 120$$

VI. FBT

2x5=10

40. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.

41. i. M.P

ii. $24 + 30 = \text{Rs.} 54$