

I. Choose the correct answer:

1. $(-52) + (-52) = \underline{\hspace{2cm}}$
 a) -104 b) 102 c) 104 d) -102
2. $171 + \underline{\hspace{2cm}} = 0$
 a) 1 b) -171 c) 171 d) 0
3. $(-30) + \underline{\hspace{2cm}} = 60$
 a) 90 b) -90 c) 30 d) -96
4. $\underline{\hspace{2cm}} - 75 = -45$
 a) -30 b) 30 c) 0 d) 75
5. $-44 + \underline{\hspace{2cm}} = -88$
 a) 0 b) 88 c) 44 d) -44
6. $\underline{\hspace{2cm}} \times 75 = 0$
 a) 3 b) 2 c) 0 d) 1
7. $(-10) \times \underline{\hspace{2cm}} = 20$
 a) -2 b) 10 c) 1 d) 0
8. $(-40) \div -1 = \underline{\hspace{2cm}}$
 a) 40 b) 1 c) -40 d) -1
9. $(-62) \div (-62) = \underline{\hspace{2cm}}$
 a) 62 b) -1 c) 0 d) 1
10. The product of zero by zero is $\underline{\hspace{2cm}}$
 a) Three b) Two c) Zero d) One
11. An integer divided by zero is $\underline{\hspace{2cm}}$
 a) Meaning less b) Zero c) One d) Positive
12. $(-5) - (-18) = \underline{\hspace{2cm}}$
 a) 23 b) -13 c) 13 d) -23
13. Which property is illustrated by the equation:
 $(5 \times 2) + (5 \times 5) = 5 \times (2 + 5)$
 a) Commutative b) Closure c) Distributive d) Associative
14. Commutative property of addition is $\underline{\hspace{2cm}}$
 a) $a + b$ b) $axb = bxa$ c) $a + (b \times c)$ d) $a + b = b + a$
15. Associative property of multiplication is $\underline{\hspace{2cm}}$
 a) $ax (b \times c) = (axb) \times c$ b) $a + (b + c) = (a + b) + c$
 c) $axb = bxa$ d) $a + b = b + a$

(15x1=15)

II. Answer any ten of the following questions. Question no.28 is compulsory either (a) or (b) (10x3=30)

16. Add 8 and -12 using number line
17. Add (i) $82 + (-75)$ (ii) $(-100) + (-10)$
18. Find the value.
 $7 - (-10)$ using number line.
19. A lift is on the ground floor. If it goes 5 floors down and then moves up to 10 floors from there. Then in which floor will the lift be?
20. Say true or false
 (i) $(-15) \times 5 = 75$
 (ii) $8 \times (-4) = 32$
 (iii) $15 - (-18)$ is the same as $15 + 18$
21. Find the product of
 (i) $(-25) \times 0 \times 45 \times 90$
 (ii) $(-10) \times 12 \times (-9)$
22. Find the value of the following.
 (i) $(-75) \div 5$ (ii) $(-82) \div 82$ (iii) $45 \div (-9)$
23. Find the sum of (-9999) , (-2001) and (-5999)
24. Scientists use the Kelvin scale (k) as an alternative temperature scale to degrees Celsius ($^{\circ}\text{C}$) by the relation $T^{\circ}\text{C} = (T + 272)\text{k}$. Convert the following to Kelvin (i) -275°C (ii) 45°C (iii) -400°C
25. One night in Kashmir, the temperature is -5°C . Next day the temperature is 9°C . What is the increase in temperature?
26. Find 5 pairs of integers that add upto 2.
27. Check the following for equality and if they are equal, mention the property. $(8 - 13) \times 7$ and $8 - (13 \times 7)$

28. Match the column A and Column B

A	B
(i) $72 + 108$	Distributive property
(ii) $8 \times (2+5) = (8 \times 2) + (8 \times 5)$	Multiplicative identity
(iii) $0+2 = 2 = 2+0$	Commutative property
(iv) $2 \times 3 = 3 \times 2$	Closure property
(v) $1 \times 7 = 7 = 7 \times 1$	Additive identity
(vi) $3 + (-3) = 0 = (-3) + 3$	Additive inverse

(or)

What is the balance in Chezhiyan's account as a result of a purchase for Rs. 1079, if he had an opening balance of Rs. 5000 in his account?

III. Answer any 6 of the following questions. Question no. 37 is compulsory either (a) or (b) (6x5=30)

29. Thenmalar appeared for competitive exam which has negative scoring of 1 mark for each incorrect answer. In paper I she answered 25 questions incorrectly and in paper II, 13 questions incorrectly. Find the total reduction of marks.

30. Kabilan was having 10 pencils with him. He gave 2 pencils to Senthil and 3 to Karthik Next day his father gave him 6 more pencils, from that he gave 8 to his sister. How many pencils are left with him?

31. A person lost 4800 calories in 30 days. If the calorie loss is uniform, calculate the loss of calory perday.

32. (i) Given $168 \times 32 = 5376$ then, find $(-5376) \div (32)$

(ii) (-400) divided into 10 equal parts gives _____

33. An atom can contain protons which have a positive charge (+) and electrons which have a negative charge (-). When an electron and a proton pair up, they become neutral (o) and cancel the charge out. Now, determine the net charge

(i) 5 electrons and 3 protons

(ii) 6 protons and 6 electrons

(iii) 9 protons and 12 electrons

(iv) 7 protons and 3 electrons

(v) 7 protons and 4 electrons

34. Add 2 to me. Then multiply by 5 and subtract 10 and divide now by 4 and I will give you 15! Who am I ?

35. Are $(11+7) + 10$ and $11+(7+10)$ equal? Mention the property.

36. (i) Say true or false. (2m)

(1) The additive inverse of (-32) is (-32)

(2) $(-90) + (-30) = 60$

(ii) What number should be added to (-17) to get (-19) ? (3m)

37. a) (i) What should be added to -1 to get 10 ?

(ii) Subtract 94860 from (-86945)

(or)

b) What is the balance amount in TamizhNambis's account after the withdrawal of Rs. 2679, if he had an initial balance of Rs. 5900 in his account?