**HALF MARK AND ONE MARK QUESTIONS**

1. Find the sum of first 200 natural numbers?
2. The hand- bore well dealer charges Rs 200/- for the first one meter only and raises drilling charges at the rate of rupees 30/- for every subsequent metre. Write a progression for the above data.
3. In a flower garden, there are 23 plants in the first row, 21 plants in the second row, 19 plants in the third row and so on. If there are 10 rows in that flower garden, then find the total number of plants in last row?
4. Write the common difference of an A.P whose nth term is given by an = 3n + 7?
5. Is ‘0’ is a term of the A.P 31, 28, 25,…….?
6. In a G.P, an = (-1)n 2020. Find the common ratio?
7. Verify that the sequence form an A.P?
8. For the A.P: -3, -7, -11, …….., find a20 – a10 without finding the terms?
9. Radha says, “1, 1, 1, …… are in A.P and G.P”. Do you agree with her? Give reason?
10. Find the 11th term of the A.P: 15, 12, 9, …….
11. Which term of the G.P: 3, 3, 9, ….. is equal to 243?
12. If x, x + 2, x + 6 are three consecutive terms of a G.P, then find the value of ‘x’?
13. In a sequence an = , then find a17?
14. Find the common ratio of the G.P: 2, 2, 4 …..?
15. Which term is the first negative number of the A.P: 14, 11, 8, …….?
16. Write the formula to the sum of first ‘n’ positive integers?
17. If 4, a, 9 are in G.P, then find the value of ‘a’?
18. What is the next term of the A.P ?
19. Find the common difference of the A.P log 2 2, log 2 4, log 2 8,……..?
20. Find the formula to the sum of first ‘n’ odd numbers?
21. Find the value of ‘k’, if k + 2, 4k – 6 and 3k – 2 are three consecutive term of an A.P?
22. In an A.P, if the common difference is 2, then find a27 – a17?
23. In an A.P, if an = 3n + 1, find the common difference?
24. In a G.P, if an = 2.(0.5)n-1, then find the common ratio?
25. The values of sin 300, sin 900 and sec 600 are in \_\_\_\_ ( )

A) A.P B) G.P C) H.P D) both A and B

1. Which term of A.P: -18, -16, -14, …… is first positive term?
2. The sum of three consecutive term in an A.P is 42. Find the middle term?
3. The 7th term of an A.P is 40, then find the sum of first 13 term of the progression?
4. In an A.P, if a = 3.5, d = 0, n = 101, then find an?
5. What is the common difference of the A.P, if a21 – a7 = 81?
6. If 18, a, b, -3 are in A.P, then find a + b?
7. Write G.P, if a = 256 and r = 1/2 ?
8. Make an A.P which has common difference -2?
9. In A.P, mention the an in terms of sn and s­n-1?

**Two marks questions**

1. The first and last terms of an A.P 1 and 11 respectively. If sum of its terms is 36, find number of terms in the progression?
2. The nth term of an A.P is 2n + 1. Find the sum of first n terms in it?
3. In an A.P, if the common difference is -4 and a7 = 4, then find a17?
4. In an A.P, if a = 3, n = 8 and sn = 192, then find the value of ‘d’?
5. Check whether 301 is a term of the A.P: 5, 11, 17, …… ?
6. If the sum of ‘n’ terms of an A.P is 2n² + 3n, then find the nth term of the A.P?
7. Explain the terms in the formula sn = ?
8. Find the sum of first 10 terms of the A.P:3, 15, 27 ,…….?
9. Find the 7th term from the end of the A.P: 7, 10, 13,…… , 184?
10. In a rangoli design of 13 rows, every row increases its previous row by two dots and first row contains 5 dots, then find total number of dots in the rangoli?
11. Which term of the G.P: is 32?
12. If the sum of 15 terms of an A.P is 675 and its first term is 10, then find 25th term?
13. Which term of A.P: 21, 18, 15, …… is -81?
14. Find the number of terms in the A.P: 7, 13, 19, …., 205?
15. Determine the A.P whose 3rd term is 5 and 7th term is 9?
16. How many two digits numbers are divisible by 3?
17. In a G.P, the 3rd term is 24 and 65th term is 192. Find the 10th term?
18. Check whether 256 is a term in the G.P: 2, 8, 32,……?
19. The angles of a triangle are in A.P. The least angle being half the greatest angle. Find the angles?
20. Given in an A.P a = 7 and a13 = 35. Find ‘d’ and s13?
21. Find the 12th term of a G.P where 8th term is 192 and the common ratio is 2?
22. If the 9th term of an A.P is zero, the prove that the 29th term is double to the 19th term?
23. If 8th term of an A.P is half the second term and the 11th term exceeds one third of its 4th term by 1, find the 15th term?

**Four marks questions**

1. If the G.P 162, 54, 18,…… and , , ,, ….. have their nth terms equal, then find the value of ‘n’?
2. A man saved Rs 16500/- in ten years. In each year, after the first year, he saved Rs 100/- more than he did in the preceding year. How much did he save in the first year?
3. The sum of first 7 terms of an A.P is 98 and that of first 15 terms is 390. Then find the sum of first 10 terms?
4. A sum of Rs 1000/- is invested at 8% interest per year. Calculate the interest at the end of each year. Do these interests for 1st , 2nd , and 3rd years form an A.P? If so, find the total interest to be paid for 30 tears making the use of this fact?
5. The sum of 5th and 9th terms of an A.P is 72 and the sum of 7th and 12th terms is 97. Find the A.P?
6. If your father is giving chocolates to you daily, then which series do you prefer either A.P or G.P. Verify by finding the difference between A.P and G.P for 5 days with a1 = 1 and d = 3 in A.P and a = 1 and r = 3 in G.P?
7. Find the sum of all three digits numbers which are divisible by 4?
8. If 7 times to 7th term is equal to 11 times of 11th term in an A.P, then show that 18th term is zero?
9. In an A.P, the Pth term is q and qth term is p then find the nth term of the A.P?
10. A manufacture of T.V sets produced 500 sets in the third year and 700 sets in the seventh year. Assuming that the production increase uniformly by a fixed number every year, find

(i) the product of T.V sets in the 15th year,

(ii) the total production of T.V sets in the first 10 years?

1. The sum of three terms which are in A.P is 33. If the product of the first and the third terms exceeds the second term by 29, then find the A.P?
2. Which term of the G.P: 3,9,27, ……. is 2187?
3. Find the sum of all two-digit odd positive integers which are divisible by 3 but not by 2?
4. Find the sum of integers between 100 and 500 that are divisible by 9?
5. Find the sum of all integers between 1 and 50 which are not divisible by 3?
6. In an A.P, an = 2n + 5, then find the sum of first ‘n’ terms?
7. In an A.P, sn = 3n² + 2n, then find the nth term?
8. If the ratio of 18th and 11th terms of an A.P is 3:2, then find the ratio of its 21st and 5th terms?